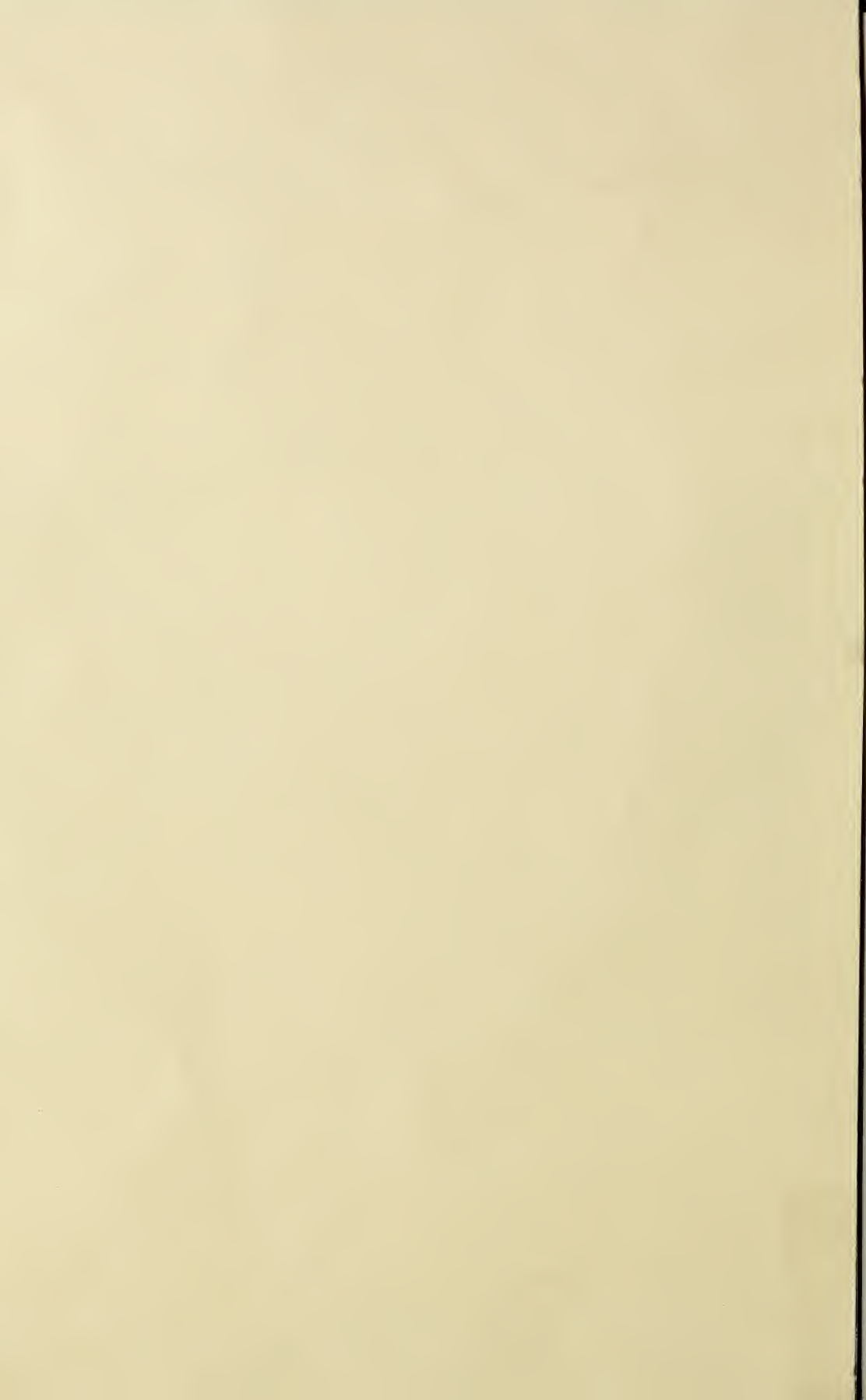


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VOLUME XXV

NUMBER 5

THE AGRICULTURAL STUDENT

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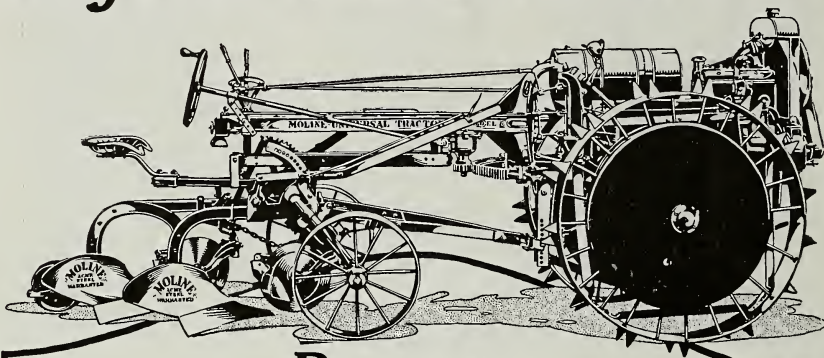
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The Agricultural Student

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No. 5

THE AGRICULTURE OF OHIO

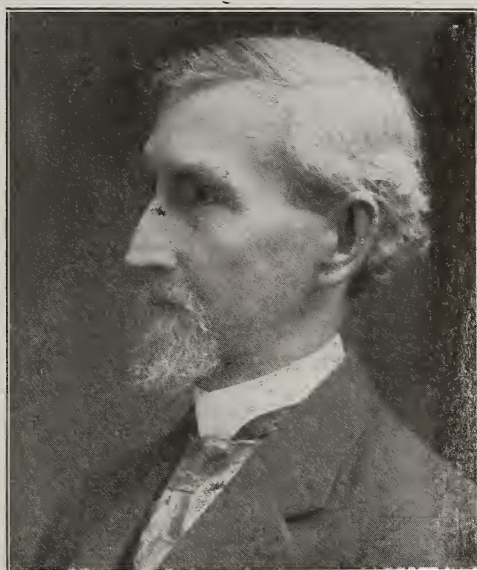
By CHARLES E. THORNE

(Director Thorne of the Ohio Experiment Station discusses the need for an extensive knowledge of the soil and fertilizer requirements of this State. By citing two counties he clearly shows the advantages of intelligent fertilization to increase crop yields which are now far too low.)

IN the work of the Experiment Station a great and increasing need has been realized for a larger, more comprehensive and more accurate knowledge of the agricultural conditions and possibilities of the different parts of the

have to each other and to the various soil formations cannot be determined by car-window observation.

This knowledge is not only needed by the Experiment Station, but it is equally needed by the College of Agri-



Director Thorne

state. In traveling over the state one observes from the car windows that some sections are hilly and others flat; that certain crops predominate in one region and various others in another section; that the farm improvements are better in one section than in another, but what relation these facts

culture, for the factors which have caused the observable differences in Ohio's agriculture are factors of fundamental importance to an understanding of the basic principles of agriculture in general.

A further need for this information is that of the farmers who own the lands

of Ohio, in order that they may have a better understanding of the causes underlying the differences of their soils and of the measures by which those differences may be overcome.

LET US KNOW OUR RESOURCES

Still another call for such knowledge comes from persons who wish to locate in the state or to move from one region to another, and for whom there is at present no such source of information as is provided in many states for the prospective immigrant. During recent years there has been an increasing demand for such information both from outside and from inside the state, and when our boys return from the war we want to be able to show them that they do not need to migrate to the far northwest to find the best opportunities for agriculture, as did their predecessors after the Civil War.

The Ohio Geological Survey, made during the seventies, furnishes the indispensable foundation for a scientific knowledge of the soils of the state, but this survey had for its prime object the development of the mineral resources of the state, and the light it throws upon the state's agricultural resources and practices, tho helpful, is altogether incidental. Moreover, the survey is published in several large volumes and in a limited edition, and is not generally available.

Immediately after its permanent location the Experiment Station inaugurated the policy of establishing permanent field experiments upon typical soils, being convinced that no one locality could adequately represent all the soils of the state. This policy has been steadily adhered to, altho progress has been slow, because such work is very expensive and it has been difficult to convince the average legislator of its importance. At present there are seven-

teen farms, in addition to the one on which the Station is located, widely scattered over this state, on which such work is in progress or will soon be installed, and on some of which results of great value have already been obtained.

The work of these outlying farms at once made more conspicuous the need of a more accurate knowledge of the location and extent of the different soil types within the state, and in 1912 a reconnaissance soil survey of the state was made in cooperation with the Bureau of Soils, United States Department of Agriculture, and published by that Bureau.

This survey, as its name implies, is merely a reconnaissance, giving the general features only of the soils of the state and their distribution. It is published in connection with a map based on the topographic survey of the state recently completed thru the cooperation of the state and the U. S. Geological Survey.

In 1850 the state began the annual collection by the township assessors of agricultural statistics, including lands in cultivation, area and yields of crops, and numbers of farm animals. This work has been continued since, and the results are given by counties, mostly in the annual reports of the State Board of Agriculture, but for a few years only in those of the Secretary of State. Buried in these volumes as they are, these statistics are like the coal under the hills, useless as they lie, but a mine of potential information of incalculable value.

SOIL STATISTICS WILL SOON BE PUBLISHED

For twenty-five years the Experiment Station has been digging at this mine when possible to find time and help to do so, and the results have been tabulated by counties and by decades

and used in manuscript form for reference purposes. The time has now come, however, when it seems imperative to put these statistics into such form that a larger use may be made of them, and a bulletin of the Station is now in course of preparation which will contain, first, a general history of the agriculture of the state previous to 1850; second, a cartographic survey of the agricultural statistics collected since that date, and third, a brief description of the state's geology, topography, soils and agriculture, with a statistical record of its agriculture, by counties and by decades, for the sixty years, 1850-1909.

Some of the most striking points brought out by this statistical study are that some counties of the state are apparently increasing in productiveness, many are at a standstill, and some are decreasing. In nearly every county there were fewer farm animals during the last of the six statistical decades than during the first three, the falling off generally beginning during the eighties.

TOO FEW FERTILIZERS USED

The reduction in the number of farm animals was accompanied by an increase in the purchase of commercial fertilizers, but in the great majority of cases the quantities of the essential fertilizing elements purchased in fertilizers have been far below what would have been returned to the land had the livestock been maintained at the standard of the first half of the sixty-year period, and the winter production of manure carefully saved and returned to the land.

When there has been an increase in production it has generally been either in counties which have been largely reclaimed by drainage within the last forty years, or where the livestock has

been maintained at a relatively high level and large purchases of fertilizers have also been made.

As an illustration of the use that may be made of this statistical survey, in connection with the field investigations of the Experiment Station, let us compare some of the agricultural conditions of Wayne county, in which the Experiment Station is located, and of Meigs county, in which field studies have been conducted on an experiment farm since 1905.

WAYNE AND MEIGS COUNTIES COMPARED

The soil of Wayne county is chiefly the light, silty clay, classed as Wooster silt loam, largely derived from underlying Waverly shales, but somewhat modified by glacial action. That of Meigs county is chiefly the heavier soil classed as Dekalb silt loam, a soil derived from the breaking down of the rocks, chiefly sandstones, of the barren coal measures.

The topography in Meigs is much more hilly than in Wayne, altho there is considerable hilly land in Wayne. There is a much larger proportion of cultivable land in Wayne than in Meigs.

Some of the more prominent features of the agriculture of the two counties are tabulated below, the comparisons being made by taking the annual average for each ten-year period.

COMPARISON OF AGRICULTURE OF WAYNE AND MEIGS COUNTIES

		Corn: Bushels per acre.					
		1850-9	1860-9	1870-9	1880-9	1890-9	1900-9
Wayne	...	26.8	32.1	41.2	34.3	33.6	38.2
Meigs	...	28.8	29.2	29.5	25.8	27.0	20.5
		Wheat: Bushels per acre.					
		1850-9	1860-9	1870-9	1880-9	1890-9	1900-9
Wayne	...	12.6	13.2	16.8	16.9	16.1	19.1
Meigs	...	11.2	8.4	9.7	9.9	12.5	11.6
		Hay: Tons per acre.					
		1850-9	1860-9	1870-9	1880-9	1890-9	1900-9
Wayne	...	1.29	1.44	1.25	1.36	1.40	1.38
Meigs	...	1.26	1.23	.98	1.02	.91	.93
		Livestock reckoned as cattle per 1000 acres improved land.					
		1850-9	1860-9	1870-9	1880-9	1890-9	1900-9
Wayne	.....	.....	200	171	144	137	.....
Meigs	.....	.....	126	127	107	77	.....

The table shows that during the fifties the average acre produced more

corn in Meigs than in Wayne, but from that time forward there has been a steady widening between the yields of the two counties, due both to increase of yield in Wayne and to decrease in Meigs.

The wheat crops of Meigs averaged only one and one-half bushels per acre less than those of Wayne during the fifties, but while Wayne has raised its yield by six and one-half bushels during the sixty years, that of Meigs has ended the period less than half a bushel higher than it began.

The hay crops tell a similar story to those shown by corn and wheat, except that the hay yields have not increased in Wayne to correspond with the increase of the grain crops, an outcome partly due to the fact that clover, which has been largely grown in Wayne, is the first crop to suffer from deficiency of lime in the soil, and Wayne county had not discovered, until the last decade that the scanty store of lime which the pioneer farmer found in the soil was at the point of exhaustion. The same condition has prevailed in many Meigs county fields, but the remedy has not yet been applied so extensively as in Wayne.

MEIGS COUNTY NEEDS MANURE AND
FERTILIZERS

A striking feature of the agriculture of the two counties is the relatively small number of livestock kept in Meigs. In the table the number of livestock is reckoned as equivalent to cattle per thousand acres of improved land, assuming ten sheep or hogs to be approximately equivalent in manure production to one horse or cow.

The statistics show that during the seventies there were 48,824 acres of pasture land in Meigs and 48,508 acres in Wayne; but during the last decade the pastures in Meigs had increased to

110,785 acres, and those in Wayne to 50,880 acres. This increase of pasture while the livestock was decreasing must mean a decrease in the feed producing character of the pastures, corresponding to that of the crop producing ability of the cultivated fields, and in this respect the pastures are likely to suffer more than the fields not only from neglect of fertilization but also from the tramping of cattle during the soft weather of spring, a source of injury from which Meigs, with its more southerly latitude, its more open winters and smaller barns has suffered much more severely than Wayne, with its longer winters and great Pennsylvania barns.

Both Wayne and Meigs have been purchasing commercial fertilizers in increasing quantities during the last thirty years, but while in Wayne such purchases have risen during the ten years, 1900-09, to an average of one hundred pounds for each acre in the principal crops, the purchase in Meigs has been but fifty pounds.

With only half the relative use of fertilizers and but little more than half the relative number of manure producing animals, it could not be otherwise than that the crop yields in Meigs should fall below those in Wayne.

In both counties the Experiment Station is growing corn, wheat and clover, in a three-year rotation in Meigs and in rotation with other crops in Wayne, each crop being grown every season. This work was begun in 1897 in Wayne and in 1905 in Meigs. Taking the thirteen years, 1905-1917, the average yields per acre on land left continuously without fertilizers or manure have been as shown below:

	1905-1917	
	Wayne	Meigs
Corn, bus.	25.6	27.7
Wheat, bus.	12.6	10.1
Hay, tons	0.61	0.70

Acid phosphate has been applied to part of the land, in quantities equivalent to an annual dressing of sixty-four pounds per acre in Wayne and of eighty pounds in Meigs, with the following results:

	Wayne	Meigs
Corn, bus.	34.8	39.0
Wheat, bus.	21.5	16.0
Hay, tons	0.87	0.86

A complete fertilizer, made up of acid phosphate, muriate of potash and nitrate of soda in such quantities as to give the following annual equivalents, has been used in both experiments, and with the results below:

Fertilizer:	Wayne	Meigs
Acid phosphate, lbs.	96	160
Muriate of potash, lbs.	52	27
Nitrate of soda, lbs.	48	107

Yield:

Corn, bus.	48.4	44.8
Wheat, bus.	27.6	26.2
Hay, tons	1.19	1.31

The figures for the state as a whole indicate a greater tendency towards increase in the yield of wheat in the northern third of the state than elsewhere, and this may be a partial explanation of the generally larger yields of wheat in Wayne county found in these experiments, but there seems to be good reason to believe that out of this work may be evolved an explanation of the causes of low crop yields and of the methods by which better yields may be obtained that will be of enormous value to the agriculture of the state.



Spreading lime on an experiment plot at the Ohio Experiment Station

WHY NOT MAXIMUM PRODUCTION?

By J. I. FALCONER

(Prof. Falconer is head of the Department of Rural Economics at Ohio State University. There are reasons for failures to produce large crops, some of them are certainly conquerable.)

IN these days of rapid transition, when agricultural information is so freely dispensed by so many different agencies, both federal, state and private, and when it is so easy to travel and observe, it might seem that there was no reason for any farmer to follow anything but the best known methods and practices on the farm. Yet actual conditions show this to be far from the existing state of affairs. Indeed, comparatively few farms can be found upon which all phases of the farm business are fully developed, and where the organization methods and practices approach what might be called ideal in all their details. There must be some reason for this.

THE CLIMATE IS INFLUENTIAL

In the first place, the future returns in the farming business cannot be forecasted with mathematical exactness; too much depends upon the weather. It is impossible to forecast what the return will be for a given expenditure in fertilizer or labor. If the season is favorable the returns may give an ample reward for the effort expended, but if the season is unfavorable the investment of capital and labor for the season may be largely lost. The Ohio wheat crop for a year has averaged as high as twenty-five bushels per acre. On the other hand, it has averaged as low as five bushels per acre. An unfavorable winter and a June frost in 1859 caused the low yield. The difference was due to the weather. The market gardener and the man operating irrigated land can make a larger expenditure per acre than the farmer operating under general farming conditions,

for he can overcome the uncertainty of a possible drought. Given the assurance of favorable weather every year, it would be profitable to increase crop yields far above the present average. But there is no such assurance. The practical farmer, therefore, allows a considerable margin of safety in order that the loss on his investment in years of low yields may be less. It would be poor judgment for a farmer to base his expenditure of labor and capital upon the expectation of favorable weather and a bumper crop, for bumper crops occur only occasionally.

LABOR AND CAPITAL

Again, the amount of labor and capital which it is profitable to expend upon a crop depends upon the price to be received. With wheat at two dollars per bushel it is profitable to expend more labor and capital per acre in the way of fertilizer, tile, drainage, etc., than it is if the wheat is to sell at one dollar per bushel. The same is true with livestock. When milk is to bring four dollars per hundred it pays to feed heavier than when milk is bringing only two dollars per hundred. The farmer is producing his crops for a future market. What price he will receive for wheat when it is ready to market is a matter of conjecture. Here again, because of the uncertainty as to the price which he will receive for his products, the farmer has to operate with a considerable margin of safety. In making his expenditure of labor and capital he keeps in mind the probability of securing a low price for his product. If backed by unlimited resources he can go further in taking a chance in

this respect than can the renter or the owner who, because of limited resources, must conduct his operations on the basis of the probable return for that particular year.

GOOD MANAGEMENT MEANS DOING THINGS
OPPORTUNELY

Limitation of capital, age, poor health, or lack of ability as a manager on the part of the operator are other conditions which limit production. Good management consists largely of doing each day and each year that which will give the largest possible return from the resources available. On one farm this may mean tile drainage,

on another liming, or the addition of an entirely new enterprise. Which of these is taken up first and how far it will be carried will depend upon the judgment of the operator. Because of limitation of time and capital it is seldom desirable to improve all lines rapidly and at once.

Better farming does much to insure crop yields, while by organization farmers hope to ensure a more stable and higher price for their products. There is ample room for improvement on the majority of farms. It is still true, however, that the limits of profitable production are far below the limits of possible production.



THE COUNTY FARM BUREAU'S BIT

By FRANK C. DEAN

(Mr. Dean is assistant editor in the Department of Publications, Ohio State University. He has summed up the usefulness of the county agent. If you are not allied with these men, you are losing an opportunity.)

NO story of Ohio's contribution toward winning the war would be complete without proper recognition of the services rendered by the county farm bureaus. Like the work of many other educational organizations, however, the benefits of the Farm Bureau are hard to measure. Certain it is that notable increases in crop and livestock production have been achieved with the assistance of these organizations. During the past year, aid has been given in the distribution of good seed stocks, in the control of insect pests and diseases, in the increased use of fertilizers, and in other ways directly or indirectly related to food production.

Much use has been made of the county agents' offices of the farm bureaus by federal and state officials in the collection of agricultural data related to war activities.

Personal assistance has also been given by the agents to special drives, as the Liberty Loan, Red Cross, Y. M. C. A., and others.

HELPED SUPPLY GOOD SEED CORN

One of the most important items of war work done by the farm bureaus this year has been in locating and distributing good seed corn.

Early in January the agricultural college and experiment station authorities conducted surveys with the assistance of the farm bureaus and other agencies to determine the amount and condition of the seed corn supply. Thousands of germination tests were made by the county agents. From these it became apparent that it would be necessary to seek additional supplies from outside Ohio. Contrary to

its usual policy, and in view of the acute shortage, the University decided to purchase and distribute seed corn. Desirable corn was located, cooperation with the United States Department of Agriculture involving the use of funds under the Seed Stocks Committee was effected, and about 65,000 bushels of corn was imported and distributed thruout the state with the assistance of the county agents. Complete and exact evidence which has been collected showed that the imported seed sprouted in the fields better than seed from other sources, and its condition in the field showed that it matured as early as home grown seed.

Several other campaigns were conducted looking toward the increased production of food.

SECURED BIGGER WHEAT ACREAGE

Farmers, for instance, were asked to increase their wheat acreage. This they have patriotically done. In Van Wert county the agricultural agent estimates that the increase was one hundred percent.

With a view to growing pure strains of wheat which have proved to give the largest yields under Ohio conditions, the county agents this past fall located and helped distribute thousands of bushels of high grade seed wheat.

In many counties difficulty was experienced in securing adequate supplies of sixteen percent acid phosphate. Thru the county farm bureaus at least 10,000 tons were secured in carlots for early delivery at reduced prices. Ability to get fertilizer and the knowledge that it would stimulate crop production has caused large increases in its use.

In Williams county, twelve carloads of acid phosphate were obtained. In Van Wert county, where seventy tons of fertilizer were used last year, approximately three hundred and fifty tons were ordered this year.

War gardens have been stimulated. Considerable assistance was given communities in consultation over the suitability of their tracts for gardening purposes, the selection of desirable crops, and the control of insect pests and diseases. Boys' and girls' clubs, organized for the purpose of raising and canning fruits and vegetables, as well as the raising of corn, pigs, and poultry, have been encouraged.

STIMULATE PORK PRODUCTION

Help was given the campaign for the increased production of pork in Ohio. Highland county, for example, raised fourteen percent more hogs.

Assistance in increasing the production of poultry and eggs was given in part thru demonstrations with the aid of specialists, thru talks, and thru cooperation with the work of the poultry and food demonstration automobile which toured Ohio this past summer in the interests of greater poultry production and food conservation.

In Highland county it is estimated the production of eggs was increased twenty-three percent.

ALLEVIATED LABOR SHORTAGE

In each of several counties over fifty laborers were supplied to farmers either personally or thru cooperation with the state free employment offices. Efforts were also made to get school pupils and city people to devote some time to work on farms. In Athens county, for example, the county agent helped in the pledging of city men who performed two hundred and fifty days of work free on the farms in that county. In Sum-

mit county three hundred and fifty laborers were furnished to farmers.

Assistance was given in investigating the merit of hundreds of applications for furloughs of farm boys in order that they might work on farms.

The threshermen in each county were called together by the farm bureaus during the past summer to secure their efforts in reducing the losses of grain in threshing operations. Threshermen pledged themselves to secure more careful feeding of grain into separators, to use a canvas for catching shattered grain, and to exercise more care in cleaning the separators. Threshermen report the saving of thousands of bushels of grain thru these practices. In Van Wert county, from two to three bushels per acre was saved. In Champaign county a saving of 3,000 bushels was effected.

CAMPAIGN AGAINST BARBERRY

Tons of agricultural bulletins, circulars and posters were distributed. Articles have been written for the press. Much publicity was given to the campaign for the eradication of the European barberry, which harbors wheat rust.

FURNISHED DATA FOR DRAFT BOARDS

Data have been collected for federal or state officials regarding the following:

Shortage and surplus of farm labor with special reference to assisting draft boards in the classification of registrants.

Amounts of viable seed corn and of approved varieties of wheat.

Prices of hides and wool and quantity sold.

Data on wool markets.

Prices of farm machinery for past five years.

(Carried to page 308)

BETTER COMMUNITY LIFE AND THE MAIL ORDER HOUSE

By J. S. KNOX

(Mr. Knox is president of the Knox School of Salesmanship and Business Efficiency. He has written a most thoughtful article on the blighting effect of the mail order house upon community efficiency.)

A PROBLEM must be acknowledged before it can be solved. The problem of community building has had a belated recognition. We are just beginning to discuss certain problems that ought to have been solved twenty-five or even fifty years ago. In order to discuss community building intelligently it is necessary to discuss community efficiency, business efficiency and personal efficiency. There can be no such thing as community efficiency without business efficiency, and there can be no such thing as business efficiency without personal efficiency. It will be necessary, therefore, to discuss community efficiency in its relation to business and personal efficiency.

Every community, like every individual, has a distinct personality, and every community, like every individual, radiates to the world exactly what it is. If a man is a success, he radiates success; if he is a failure, he radiates failure; if he is an optimist, he radiates optimism; if he is a pessimist, he radiates pessimism. The same thing is exactly true with a town. Every individual who goes thru your town carries away an impression of your town, and the impression which he carries away depends upon the impression which your town makes upon him. There is a difference in communities just as there is a difference in individuals.

LARGER VISION NECESSARY

One of the things we need today as individuals and as communities is a larger vision of life and its possibilities. A prominent commercial school president once said that no prospective stu-

dent had ever come to his school and asked him what kind of a faculty he had, or what kind of an education he would get. He said the prospective student asks just two questions. The first is, "How much will it cost, or rather how little will it cost?" and the other is, "How soon can I get thru?" Rapidity rather than efficiency is the watchword of the American youth. He practices a hand-to-mouth philosophy. He has practically no vision of the future. He is thinking of today and its problems. He is not thinking of what he might be doing in twenty or twenty-five years from now. He has a \$50, a \$75, or a \$100 a month ambition. He, therefore, gets an education which is no better than his ambition. If he had a \$3,000 or a \$5,000 a year ambition he would get an education to fit it, and then he would prepare to solve some of life's great problems.

The average young man grows up with this kind of a philosophy and when he becomes a man he still has a boy's ambition, a boy's vision, a boy's education, and he does a boy's work. Then he wonders why he is not more successful. One result of this limited ambition, limited vision, and limited education is, according to the Russell Sage Foundation, that ninety-five percent of the men of America are incompetent thru lack of proper training to make a success in any trade, business or profession. Consequently, the loss to one generation is estimated at \$250,000,000,000.

Some years ago the late Bishop Fowler went abroad. He visited every

big city in the world and when he came home he gave expression to this interesting statement. He said, "America is my alphabet, the world is my textbook." He was standing on a great mental mountain peak, so to speak. He had a vision of his own town, his state, the nation and the world. But I fear there are people in every town in this country who might honestly say, "This town is my alphabet, this county is my textbook." Their vision is bounded by the confines of their own community. Unless an individual's vision is bigger than the boundary of his own business or his own county it isn't big enough to help him solve his own problems.

New York state, for instance, spends \$90,000,000 a year for lumber, only half of which is raised in the state, when it could practically all be raised there. New York state only raises one-fourth of the lumber and wood it consumes. Of the 34,000,000 acres in New York state only 14,000,000 are under cultivation. There are 7,000,000 acres enclosed within the farms of New York state that are practically known as waste land. The Forestry Department claims that if this waste land was properly planted in forest trees it would produce from \$2 to \$5 worth an acre each year. That means over \$20,000,000 worth of lumber a year, and that amount of money is lost to New York state each year because the people in the state who own the land lack the proper vision.

MISUNDERSTANDING IGNORANCE

There are knockers in every community. Did you ever analyze the philosophy of a knocker? A knocker is a man who doesn't understand. It is a law of human nature that what a man doesn't understand he opposes. This has always been true. It is true in pol-

itics, religion and business. Chauncey Depew once said it was forty years from the time an idea was originated until it was incorporated into national law. This, he said, was true, not because the idea was a bad idea but because the people didn't understand it and therefore opposed it. Christ was crucified because certain men did not understand. Socrates was obliged to drink the hemlock for the same reason. Burroughs, the inventor of the adding machine, worked seventy-two hours at one time, practically without food and sleep, in order to perfect his invention. They called him a fanatic, but now they call him a genius. When his men went to Chicago to sell the machine it took them four years to sell an adding machine to the First National Bank in Chicago, but now that bank has one hundred and fifteen machines. They needed it then as badly as they need it now, but the bank didn't understand, and for that reason, opposed it.

KINDNESS A VALUABLE ASSET

What we need today is more kindness, more courtesy, more consideration, more vision, and more heart power. Heart power is something you can't weigh on the scales. You can't measure it with a yardstick. It is like sunshine. You can't sweep it up with the broom, but it reaches out and warms the heart of humanity.

There is no one thing in this age that costs so little and is worth so much as courtesy. It is an outward expression of an inward kindness.

THE MAIL ORDER HOUSE BLIGHT

Some one has said, "The one who serves best, profits most." It is a very good statement and worthy of our serious consideration. But we have not realized the value of this philosophy. While we have antagonized each other and while we have not had a vision of

our own community and its possibilities, what has happened? Why, the mail order houses of this country have seen their opportunity. They have realized that the merchants of this country were fifty percent asleep. They have stretched forth their blighting, blasting hands across the fairest country the world has ever known. One result of this in some country districts is that they are now doing twenty percent of the business and some of them are increasing their business at the rate of from ten to thirty percent a year. If they continue to increase their business as they have done the last two decades it will not be long until most of the merchants of this country will be driven out of business. The wholesale business of Chicago dropped off ten percent, or \$200,000,000, in 1914, while the mail order business of Chicago during the same time increased ten percent, or \$30,000,000. In a recent visit to Yankton, South Dakota, a town of about 4,000, a banker told me his bank was handling \$2,000 worth of checks a day from one New York mail order house. The mail order houses are selling Lansing, Michigan, a city of 30,000, nearly \$2,000,000 worth of goods a year. It will surprise some of the retail grocers when they learn that the retail grocers are now selling only forty-eight percent of the tea, coffee, spices and soap of this country. Fifty-two percent is already being sold by the mail order houses and the country peddlers.

SMALL TOWN DECLINE

Another result is that 10,000 American towns are losing population. From 1900 to 1910, 1,500 Pennsylvania towns lost population. During the same period the following number of towns in the following states lost popu-

lation: Ohio, 1136; Illinois, 788; New York, 746; Michigan, 677; Indiana, 639; Iowa, 564; and Missouri, 540.

ANALYZING THE PROBLEM

There are five reasons for mail order supremacy and small town demoralization. These reasons are as follows: First, lack of proper community organization; second, lack of community co-operation; third, lack of community loyalty; fourth, lack of salesmanship, advertising, and business efficiency on the part of the business men; fifth, because of the high degree of salesmanship, advertising and business efficiency on the part of the big mail order houses of this country.

What is the purpose of your town in your community? What is the supreme motive which should animate it and dominate it? The supreme purpose of your town should be to serve the community to the maximum of its ability. Are you doing that? Is it possible for you to render such services without the right kind of an organization? "What do you mean by organization?" I mean the systematizing of the community interests in such a way as to render the greatest possible community service.

No one man knows very much. I do not and I have never met a man who does. Business men who are doing big things in the cities realize the absolute necessity of continually listening to experts along various lines. If they did not listen to those experts continually they would not be big business men. They would not know how to solve their problems.

While in Kansas a short time ago I heard of a certain farmer three miles out of town who bought practically all his goods from a mail order house. I

was so much interested that I decided to visit this farmer and learn from him just how he felt. I found that he had a fine home, fine farm buildings and a high-class automobile. He told me frankly that he bought his goods from the mail order house because he believed he could get them cheaper than at home. I said, "Are you aware of the fact that the towns of this country pay thirty percent of the taxes?" He said he wasn't. I said, "You are doing the best you can to kill your home town. When you do that the taxes on your farm will be raised. Had you realized that fact?" He said he hadn't. I said, "Do you know when you kill this town you will kill the social life in your community and when you do that you won't find men who are willing to work for you. When you kill the social life in this community your own children won't stay at home. They will leave you. When you increase the taxes on your land and when you decrease the social life in this community, you decrease the value of your land. When you kill your town, you give your community a bad reputation. Who wants to buy a farm in a dead community? Every time you send money to Chicago you help to boost real estate values in Chicago and decrease real estate values at home. Every time you send away for goods you are helping to decrease the value of your own farm. You are cutting off your nose to spite your face, but you are not aware of it." Before I got thru with that man he apologized for buying anything from a mail order house. He said he never looked at the situation from that point of view before. It is simply a question of education. That man never had an opportunity to consider the situation from any other point of view.

MAIL ORDER VS. HOME STORES

A farmer in Oklahoma came to town one day and told the hardware man he wanted to buy a saw. The hardware man showed him a good one for \$1.65. The farmer said, "Why, I can get a saw just like that from a mail order house in Chicago for \$1.35." The merchant said, "I will sell you that saw upon exactly the same terms that you can get it from the mail order house," and the man said, "All right, charge it." Is that the way the mail order people built their business? No. Too long have the American people forced the merchants of this country to act as their bankers, and to act as their bankers without paying them any interest on their money.

This merchant said, "Kindly hand me the \$1.35." The farmer did. The merchant then said, "It would cost you just 25 cents expressage on this saw from Chicago. Kindly hand me a quarter." He did. Then he said, "It would cost you five cents for a money order. Please hand me a nickel." And he did. This you will notice was \$1.65 already. "Now, then," said the merchant, "it will cost you two cents for a stamp. Please give me two cents." And the farmer did. But he was getting rather wrathful by this time, and he said, "Quit your blankety-blank monkey work and hand me that saw." The merchant said, "Where do you think you are? You are a farmer in Oklahoma. I am a mail order man in Chicago. It will be ten days before you get your saw."

You can send to New York or Chicago or anywhere you please for your dry goods and your groceries, but you cannot send away for your paved streets, for your schools, for your churches, or for your social life. Neither can you get your Lyceum courses or your Chautauquas by mail.

A TRACTOR FOR SMALL AREA CULTIVATION

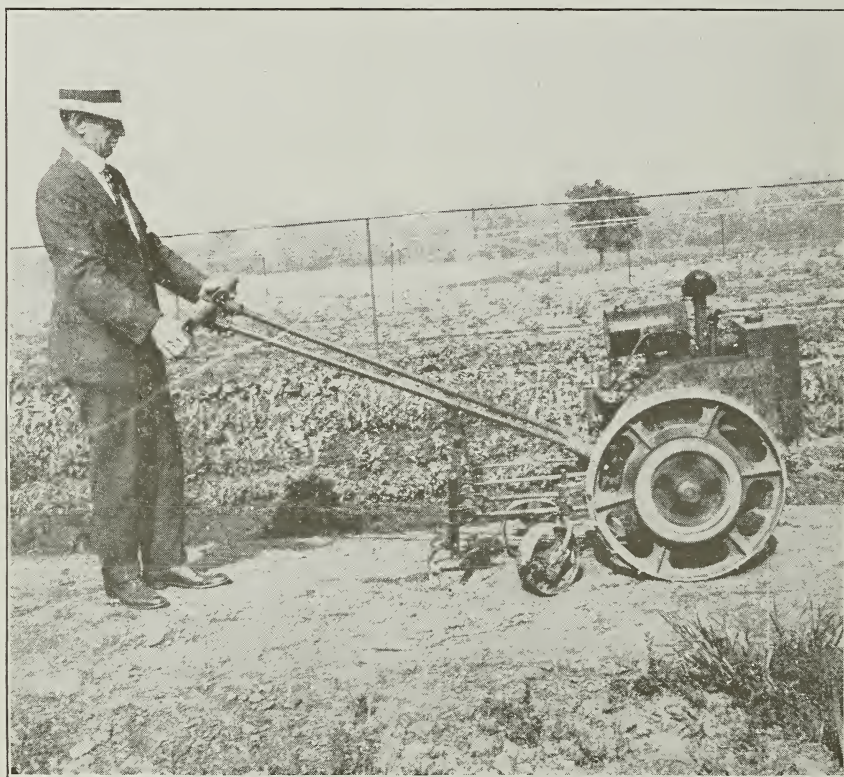
By HARRY E. JACOB, '18

(Mr. Jacob is instructor in Vegetable Gardening at Ohio State University. For small areas horses may not be available, so that a cultivator such as is described has a place in the vegetable garden, or for use where intensively cultivated crops are grown.)

IN recent years there has been an increasing interest in the production of a tractor which would eliminate horses from the garden. A machine of this kind must possess three requisites: First, it must be small enough to cultivate rows as narrow as twelve inches.

the above requirements. In recent years a garden tractor has been developed which works more or less satisfactorily, depending to a large extent upon the nature of the work and the skill of the operator.

The Department of Horticulture,



Second, it must be powerful enough to do any work not exceeding a one-horse cultivator, and, third, it must be easy to manage. Any machine not possessing all of these factors is useless. Such was the case with the first garden tractors built. They lacked one or more of

Ohio State University, received a garden tractor last spring, and during the summer it has been operated by three men, including the writer. After the first half hour's trial each man in turn pronounced it unmanageable and useless. After a half day's work we agreed

that we might get some work out of it. After one week we decided that it was a practical machine. It takes about a week for a man to learn to operate the tractor, and until he learns he had better work where he has plenty of room. The tractor is guided by friction of tools in the ground which can hardly be described in words, but must be experienced to be properly understood.

After one becomes familiar with the machine, anything from onions drilled twelve inches apart up to corn planted forty inches can be satisfactorily cultivated if soil conditions are right. For use in narrow rows the soil must not be too wet; it must be level, and must be evenly packed. If there are many holes such as horse tracks or even loose places, the machine is difficult to manage. If one wheel drops into a hole that side then pulls harder than the other and the machine has a tendency to turn. On more even ground, however, the work can be easily and well done.

Cultivation in rows wide enough to permit the use of four-inch extension rows is much easier. With the extension runs the tractor is much more stable, steady and powerful. In fact, if the proper tools are used it will do practically as much work and do it just as well as an ordinary horse.

We have used the tractor here this summer to cultivate corn, celery, tomatoes, and a few beets. While the tractor will do practically the work of an ordinary horse, it does not compare with a good, slow, steady, careful horse where a horse can be used. Neither does its work in narrow rows equal in quality the work of an expert wheelhoe man. Of course, one man with the tractor will do as much work as two or three men with wheelhoes and do it easier.

In the matter of fuel consumption the tractor is quite economical, running from two to about five hours on a gallon of gasoline, depending, of course, upon how hard the work is.

The belt power of this tractor is a desirable feature. It is claimed to develop full four horse-power, and the engine delivers a smooth, steady power available for any machinery not requiring more than four horse-power.

In a few words the following is the writer's individual opinion of the tractor: If a man keeps a good team anyway, he does not need a tractor of this kind. But if his area is too limited to keep horses profitably, or if it is desirable to eliminate horses altogether, a tractor of this kind is desirable and will render at least reasonable service.



HOW TO MAKE A GOOD SPEECH

By FRANK P. GRAVES

(Dr. Frank P. Graves is Dean of the School of Education of the University of Pennsylvania and a former professor of Ohio State. Before the Farmer's Institute Normal Convention in Columbus, October 10, Dr. Graves gave two very interesting talks on how to deliver an interesting and instructive speech. The first part of this article was printed in the December issue.)

I must now consider what else should enter into an effective speech beside the various nodal points in the argument. Evidently one must furnish the audience with variety—with facts, fancy, and wit, as well as sheer logic. In general, a speaker should plan to present one solid fact and one well chosen illustration under each head or argumentative point. One will be found sufficient, since the occasion itself will stimulate others that are most appropriate and telling if one is speaking extemporaneously and has his wits about him. Usually the best hits that are scored are the sudden flashes that were never dreamed of when the outline was composed and that are the outgrowth of conditions that arise at the time. All of you who have heard President Thompson speak upon important occasions will recall how his most effective hits are those suggested on the spur of the moment by the occasion itself. The fact you deliberately plan for each head may be taken from nature, experience, or from a book or treatise, but it must be brief, clear, and weighty. The illustration you use may also come from a wide range of interests. It may be grave or gay, humorous or imaginative, factual or fictitious, and may be taken from poetry or from a newspaper, from Shakespeare or Mark Twain, Dickens or the Bible, provided only that it appeals to the audience.

In order to hold your audience, it is well to distribute the heavy reasoning and lighter vein of humor and anecdote thruout the speech. By this alternation one may keep from tiring his audi-

ence even if the address lasts for some time. The hoarse voice of the heavy cannon is often interrupted by bombs, machine-guns, whiz-bangs, and noxious gases, in effective warfare today. In that very clever novel, known as *Dear Enemy*, the young statesman suggests four elements that may be used to make a speech attractive. He says first, "be funny." Undoubtedly there is something in this, for every one likes humor, but a speaker should not let his own smartness run away with him, wound the feelings of any hearer, or obscure the real point he is striving to make. He advises next that a speaker "flatter his hearers." This should be taken "with a grain of salt." We are all of us somewhat more liable to think our ability a little greater and our work a little more important than others do, but we naturally become suspicious of a man who furnishes his pill with too heavy a coating of sugar. Of course one should never rub his audience the wrong way, unless he has to argue an unpopular cause, but he will find that too large a dose of flattery is resented as an insult to their intelligence. As Kipling says: "Tommy ain't a bloomin' fool—you bet that Tommy sees." Thirdly, he holds that one should "give his speech a highly moral tone, accompanied by a dash of pathos." Here again we have a fruitful suggestion, if it is not overdone. His last counsel is to keep the material fitted to the intelligence of your audience. This is of the utmost importance in dealing with an audience of farmers, but it is quite as important not to underestimate, as to

overestimate their intelligence. "When I was a child, I spake as a child; now that I am become a man, I have put away childish things" None of us wish to be always fed upon spoon victuals, or otherwise treated as an infant or invalid.

A GOOD MENTAL SPEECH OFTEN NEEDS TO BE VOICED

Now, having decided upon the points, facts, and illustrations he is going to make, it is necessary for a speaker to get them well in hand and practice himself in clothing them with suitable language. In order to make a good extemporaneous speech in public once, it is necessary to make it many times in private. The outline can be stamped upon one's mind and a flow of language ensured by running over the speech mentally, or better, aloud, as often as possible. If the preparation is made early enough, a number of opportunities for this rehearsing will present themselves. The best occasion probably comes when one is out for a stroll by himself, when his mind is free and there is no one around to interrupt. But it is quite possible to promote this preparation while sitting idly in the street car or waiting for a belated train.

THE OMISSIONS ARE NOT WORTH THE NOTES.

Get your material so well in your control that you will not need even notes with you. To carry a scrap of paper before an audience, or worse, a large sheet or a notebook, is in itself fatal to effectiveness in speaking. When one is apparently without notes and upon his own resources, he almost instantly wins the sympathy of his hearers, and, as compared with this sympathy, neither logic, sequences, transitions, or even actual material is of great importance. No one will miss what you leave out. If

you have a goodly amount of material, you may safely forget some and yet make a good speech. It is not what you think of value, but what your audience does, that counts in a good speech.

PHYSICAL FITNESS

When at last the day of your great effort is at hand, try to make your physical condition as nearly perfect as you can. Plan, if possible, before speaking, to have your mind clear and rested. Often a nap or a short walk into the fields, or both, will work wonders in heightening mentality. Eat sparingly for a meal or two in advance of the talk. One can nearly always starve himself into action, and he can do little thinking and express himself but poorly, if his blood is being utilized by digestion. If your condition is poor or you have been unable to carry out these prerequisites, you may borrow, if you wish, upon your future vitality thru the medium of a cup of coffee, but you may be sure that you are borrowing and will sometime have to pay or suffer the consequences.

But having made due preparations and taken the precautions mentioned, do not get panicky and worry yourself over your address up to the last moment. There are men who regularly ruin their speeches simply thru nervousness and stage fright. As one friend of mine puts it: "I am sick right up to the time of speaking for fear of what I will say, and then I am sick for the rest of the meeting for fear of what I have said." This is exactly what we should expect of such folly, but there is no reason for it. If you have conscientiously prepared your outline, practised yourself in expressing the thoughts there included, and put yourself into the best physical condition possible, you need not fear for results. You can

have, and seem to have, confidence in yourself and your audience.

ENJOY YOUR OPPORTUNITY TO SPEAK

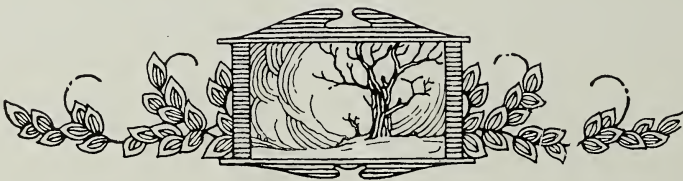
And it is very necessary that you should have this feeling and appearance of confidence and command of the situation. If you do not have a little glow of feeling and a little tone of pleasure upon coming before an audience, you probably will not make a good speech, and if this lack is habitual, you will never become a good speaker. While you should have deliberation of manner and repose of mien, you should also evidently be enjoying the occasion. It is well to arise to speak with a little smile, a friendly "glad-to-be-here" air, and generally show that you have something of value that you desire to say. If you smile at the world, or an audience, it will smile back at you. It is the unfailing good humor of Dr. Thompson that wins the audience before his first word is spoken.

BE YOURSELF

If I had not listened to so many indiscreet speakers, who were otherwise men of good sense, I would not bore you by cautioning you to speak clearly. But this does not mean to shout like a wild Indian or some candidates for political office. You can speak in a

natural and conversational manner, and yet reach all your audience. Do not raise your voice, but rather sink it, if you would secure resonance. A good plan is to imagine yourself speaking in a perfectly natural tone to some one you see seated toward the rear of the room or hall. Remember above all things not to be pompous. While public speaking is still much prized, there have forever passed those days of the old-fashioned eloquence, when speakers in frock coats, with their right hands placed gracefully in the opening, gyrated and ranted. We have come now to use public speaking as a means of disseminating information and argument, and are less concerned in stirring emotions and counting success by the duration of applause.

In this lengthy talk I have endeavored to indicate a few of the factors that enter into the product known as effective speaking. But there is little that any outsider can do for you further than to offer suggestions. Public speaking is an art and not a science, and in order to be perfected must be practised. You will accomplish more in that way in a few weeks, especially if you have an incisive but friendly critic accompany you, than by listening to a lifetime of lectures on the subject.



THE BRUMBACK COUNTY LIBRARY

By J. W. NICODEMUS.

(Read here the story of the first free County Library in the United States. J. W. Nicodemus is a Farm Institute Lecturer. Such libraries are the banks of knowledge upon which every one may write as many checks as he wishes; they are great factors in the individual education of a community.)

THE Brumback Library of Van Wert County has been made possible thru the magnanimous gift of \$50,000 by J. S. Brumback, now deceased. When this generous gift was made for a library there was no law

lar of property to provide a library fund.

The Brumback Library opened its doors to the people January 1, 1901, the first free county library in the United States. The work done at the



The Brumback County Library, Van Wert, Ohio

authorizing the county to accept it. A bill was introduced in the Ohio Legislature and passed April 26, 1898, known as the Van Wert Law, to receive and maintain said gift and library, and commissioners empowered to levy each year one mill on each dol-

lar. The work done at all municipal libraries; but this is only a part of the work done, as it is the headquarters of the county rural extension service. The work of the library is carried on in four distinct departments, with a trained librarian

at the head of each department; namely, the central library proper, the county branch library, the county schools and the children's department.

BRANCH DEPARTMENT

Branch stations have been established in sixteen towns and hamlets of the county. The library is located in some central store in charge of the proprietor, who is wholly responsible, making regular detailed reports of circulation. He receives a salary of fifty dollars per year. "A collection of from one to two hundred books visits each station for three months, returning at the end of each visit to the main library for inspection, whence it is sent out to the next station as per schedule (resembling a railway train schedule) until each station has had the entire sixteen collections of books, four of which are each year made up of new books. Each collection comes to and is sent from the main library four times a year. Therefore, since there are sixteen of these book collections, this department handles sixty-four such collections a year or 9,140 books, one collection coming to and going from main library every five days."*

COUNTY SCHOOL DEPARTMENT

In the years 1904-5 the teachers in the schools of the county began to see the necessity of having library books in their schools, especially for history and reference work. The board organized this department in 1906 to meet the need of the county schools, the teachers making their own selections of books, which could be changed to suit their needs at any time. In 1917 the total number of classrooms in the county was 125 (not including Van Wert and Delphos schools), 122 of

these had library collections; the total circulation for the year was 32,670 volumes in this department. From rules governing teachers I quote you Nos. 6 and 7. No. 6: "Please do not deny the child full use of the books as a punishment for low percentage or poor deportment"; No. 7: "Write to the librarian when you would like a bit of information on any subject. You can thus consult the library's reference books at any time by correspondence."

Union township recently established a centralized school with library room. We have placed a library of 500 books for the present school term. Ridge township, whose centralized school building is in process of erection, will have an excellent library room and we will supply them with 500 books. In a neighboring state a year ago the state superintendent of education sent out notes to the smaller high schools advising that courses in domestic science and agriculture be substituted for geometry and Virgil. It did not occur to him that he might have established a lower form of education (if some should wish to term it as such) without destroying a higher form. In our case where 500 books are of high merit and are a good form of education, they are sent out to a small community for nine months without eliminating or weakening any form of education or public school system. We believe we are contributing to a higher foundation of education.

The growth of this library has exceeded our highest expectations. Busy men come in for a few minutes, women engaged in home and club work, farmers' sons and daughters engaged in club work continually visit us; then at close of school hours our large reading and reference rooms are crowded beyond their capacity with students at work. What a busy scene! Such daily activi-

* The quotations in this article are from Mr. and Mrs. Antrim's work "The County Library," Mrs. Brumback-Antrim is the present efficient secretary.

ties and search for knowledge spurred the Board to remodel the basement for a children's department.

CHILDREN'S DEPARTMENT

In April, 1918, the most beautiful and attractive rooms were opened for the use of the children. A pleasing

knowledge that their children are carefully supervised as to their conduct, and books selected for them; 15,556 books have been loaned from this department. On Saturday evening of each week at 4 p. m. the librarian entertains the children with a "Story



Unpacking a Branch Library

feature of this department is that an exceptionally fine outside entrance has been provided so that no interference whatsoever is possible with the main library. This department is open for children the same hours as the main library. A thoroly trained librarian is in direct charge; the parents have full

Hour." Upon the removal of the juvenile department from main library to the basement we at once established an agricultural department and study room which had been long in contemplation.

It appeared almost dangerous to organize such an institution as this, the

first of its kind, with no experience and no public agency to suggest any form of system. The institution was eventually one piece of work; yet it had two distinct parts, that of city and country. They were interrelated. The determinations of the Board would necessarily affect the whole, or any part; what was best for one must be equally so for the other. What ideas, plans, and systems were originated were never endangered by any individual member of the Board. This closely knit organization of the Board with a unit determination supported by the efforts of a conscientious library staff, seemingly has contributed to a steady growth and development. The desire of men and women to better the public conditions and families, is the force that moves the intellectual and social world. We quote from Miss Comstock in her work entitled, "Byways of Library Work."

"The remarkable Brumback Library of Van Wert county resorts to most ingenious methods to reach the 29,000 people who are scattered over 405 miles of agricultural land. It does not rest with sending books to the sixteen county stations and county schools and leaving the people to read or not as they like, it lays traps for them. At the Van Wert County Fair in 1913 it not only presented its own exhibit but it took advantage of everybody else's exhibit to call attention to itself."

An educational institution can use commercial methods. The management believes in advertising. The exhibit of the library at the County Fair is a fixed policy. We occupy a prominent booth in the large Art Hall; people expect the exhibit in that particular place each year. On the grounds our system of advertising changes. One year it may consist of a large banner

with heavy lettering, or it may be a card placed above an exhibit attractively designed where they will attract attention, reading as follows: "Is your farm big enough or too big? The Brumback Library has books on such subjects." Or a placard "Does Livestock pay? Ask at the Brumback Library exhibit in Art Hall for 'Profitable Stock Raising.'" The press of our city has a large part in the making of our library, devoting liberal space to new books, their titles and authors appearing week after week. A remarkably strong feature is our magazine department, which now totals 110 magazines that are received monthly. Now, we allow the borrower one magazine of any former month in addition to the number of books they take out, retaining the magazine for one week. "The borrower is allowed two books on his card provided one is non-fiction. He is also permitted at the discretion of the librarian to draw other books when some are needed at home for study." Our policy is to make the people feel that what is in that library is *theirs* and not *ours*.

To the free county libraries in Ohio, where they are now established, and those counties which are now contemplating this action, we especially make our appeal. This is a high form of education finding its way into every home, rich or poor. Not a home in our county but has free access to select from 30,000 volumes comprised of the following list: Philosophy, Religion, Sociology, Science, Fine Arts, Useful Arts, Literature, Travel, Biography, History and Fiction, Juvenile books. Plato put this prayer in the mouth of Socrates: "Give me beauty in the inward soul and may the outward and inward man be as one. May I reckon the wise to be the wealthy and may I have such a quan-

tity of gold as a wise and temperate man can bear and carry." Some one has said: "We are ready to strive to prepare ourselves to be torchbearers in the great race." This is truly a great and magnificent program. The point has been reached in the educational realm where the question arises whether there is not danger that the interests of the gifted child will be sacrificed to meet the

sonal and child life as they should be. Whatever program in training is worked out or may be worked out, the endowment must be reckoned with. So it is not strange that the cry comes from youth for the opportunity of following their natural bent in study in the library rooms.

The county seat near us has a Carnegie city library. Some time ago a



The Children's Room of the Brumback County Library

needs of the less gifted. Our educational program often is questioned, for men do not agree upon educational theories, but the county library as an institution of learning is free from individual or committee programs that in any way lessen the freedom of aptitudes in both adult and child. We enter the library today with our aptitudes and endowments more free than any other institution of learning. Our endowments are not so much appreciated in our per-

country boy came into this library and inquired of the librarian for a special book. She asked him where his parents resided and he informed her "in the country." She said the circulation of the library was limited to the city. The boy stood a moment, then turned and walked from the institution of learning with a bowed head and thus he walked as far as he could be seen down the street, a disappointed boy. Nothing

(Carried to page 310)

COOPERATIVE BUYING

By A. O. NEWCOMB

(Mr. Newcomb is the Farmer's Institute instructor in Burton, O. He tells a profitable story of the benefits of buying fertilizers, drain tile and lime in large quantities.)

COOPERATIVE buying is not a new venture among the farmers of Geauga county but has greatly increased since the organization of the Farm Bureau. Dairying is the principal line of farming engaged in here, and most dairymen find it profitable to supplement the farm grown feeds with concentrates containing a high percentage of protein to make a ration for their dairy cattle. These concentrates are linseed meal, cottonseed meal, dried beet pulp, bran, gluten, and distillers' and brewers' grains, with various combinations and mixtures. The quantities of these purchased is in the aggregate very large. The price of these feeds fluctuates greatly during the year. There is as much as \$15 per ton difference between the early summer and the winter price. There is also usually quite a difference between the retail and wholesale prices, and these two factors have made quite an inducement for farmers to combine and order carloads of these feeds at a time when the market seemed to warrant. This was done at various times thru the medium of the Grange and by neighborhood groups before the organization of the Farm Bureau.

When this was organized five years ago, among its first undertakings was the cooperative purchase of commercial fertilizers. The fertilizer business had been exploited without regard to the interest of the farmer in building up his soil.

The Farm Bureau, thru the county agent, undertook to show the farmers what elements of fertility were most needed and as a further encouragement to them, purchased in liberal quantities,

from one firm, what was needed for the whole county, and appointed a representative in each township to look after the distribution. These local men received a small commission for their services, but as farmers came direct to the car and paid cash, the selling expense was reduced to the minimum and resulted in a net saving of thousands of dollars to the farmers, besides a more liberal and intelligent use of fertilizers.

In 1918 tons of commercial fertilizers were handled in this way. Two other very important agricultural needs in Geauga Co. were drain tile and lime. The use of both of these was also encouraged by the Farm Bureau. Orders were collected by the county agent until carloads could be ordered.

An attempt was made in 1917 to extend these methods to the purchase of feeds. A committee from the Bureau was appointed to keep in touch with the market, and when the price of various feeds seemed to warrant they were to inform the township men, and they in turn were to solicit orders. The rapid fluctuation made this rather difficult, as a few days delay in time frequently made several dollars difference in price. About 25 carloads of feed were ordered, and a large saving was effected for the farmer. In 1918, after consultation, it was decided to carry this service one step further; a stock company was organized at one principal shipping point to conduct a general retail supply business, and in addition to look after the wholesale orders that had been handled thru the Farm Bureau. This has only been in operation two months, but indications are that it will prove highly successful and that cooperative buying will continue to increase.

WHAT IS AN EQUITABLE FARM LEASE?

By H. P. MILLER

(Mr. Miller is a farmer near Sunbury and a former County Agent of Portage County. The owner and the renter have an obligation to the general welfare of permanent agriculture. Both must maintain the fertility.)

NO phase of farm business is conducted more loosely than that of leasing land. Accuracy in placing values upon what each party contributes to the enterprise is the first essential in a satisfactory contract; the second essential is making the interests of the two parties identical so far as possible; and the third essential is a provision for upkeep of the place, buildings and soil. No lease will long be satisfactory unless equitable.

Custom cannot determine equitably a farm lease contract, because no two farms are of equal value to a tenant. Many factors there are which affect the value of a farm: its location in respect to town, railway, school and church; character of roads; condition of buildings and fences; fertility of soil; size, shape and location of tilled fields; contour of farm; water supply for house and stock; proportion of farm that is productive; and the character of farming that the farm and markets make necessary.

All these factors greatly affect the values of a farm for a tenant, so that the first step in making a contract is to agree upon the value of the farm to the tenant. This is best expressed in the accepted measure of values, the dollar. The next step is to agree upon the value of the tenant's services to be devoted to the enterprise. This should include the labor of members of his family, if the wife and minor children are to assist with dairy or poultry, or a per hour wage may be agreed upon for such labor.

The most frequent cause of dissatisfaction in farm leasing arises out of

the custom of simply agreeing that the tenant shall furnish the labor as an offset against the land. It is to the interest of the land owner under such a contract to get just as much labor performed as possible and to the interest of the tenant to employ just as little as possible. The solution of this is for both jointly to employ all labor above that of the tenant himself. This provision falls under the second essential mentioned above.

Under leasing "custom" there is always a jockeying for advantage in what each party shall put into the enterprise in the way of equipment. In some localities it has become the "custom" for the tenant to furnish all the teams and tools, the productive stock being owned in partnership.

Under this general arrangement there always arises some disagreement as to how much machinery the tenant should furnish.

I lay down as fundamental that sharing net income is the only equitable system of leasing land. Seasons and market prices make cash renting extremely hazardous for the tenant, and at the same time offer the strongest inducement for him to exhaust the soil as rapidly as possible, and to neglect the upkeep of buildings and fences.

We are fast coming to a consciousness that the public has an interest in the maintenance of fertility, and we shall not long permit forms of farm leases that do not safeguard fertility maintenance. A land owner has no more right to deplete fertility than a tenant, hence there are really three par-

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OHIO STATE UNIVERSITY

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EDUCATIONAL NUMBER

We have tried in this number of THE AGRICULTURAL STUDENT to present certain inspiring thoughts for community and personal betterment for the coming year. We feel that it should be the policy of such a college publication to stand for the best in agriculture. Read the articles, write us constructive criticisms of today's agricultural problems. Suggest to us questions you would like to see discussed.

If you have written us that you are most interested in the alumni notes, send us some. We shall attempt in the future to publish the important events which take place on the campus.

Next month is our Farmers' Week Number; it will contain several of the

good papers presented during that week.

PROBLEMS

This number has been devoted principally to educational features. The war is over and we are all anxious to get back to civilian thought and practice. The war moods can not sustain life. There will be a greater demand for the practical side of education.

President Thompson has expressed the hope that we will not adopt such methods of the military education as might be termed superficial. He refers principally to the methods employed in teaching the applied sciences where only such chemistry, engineering or bacteriology was taught as was of practical

importance for the moment. Such was necessary under the exigencies of the hour, but now we must return to a more systematic and comprehensive discussion of these subjects.

Dr. Butler, president of Columbia University, recognizes some lessons from the war. *Current Opinion* quotes Dr. Butler as saying that the shortcomings of our present-day education are due, in large measure, to the attitudes of the instructors who "have almost uniformly proceeded as if every student who came under their influence was to become a specialist in their particular science. *

* * It is a sorry commentary as to what is going on in our secondary schools and colleges in this respect to learn on the best authority that there are now in France at least two hundred thousands of American young men who, after six months of military activity in France and three or four hours of instruction a week in the French language, can carry on a comfortable conversation. * * * On the other hand, many an American college graduate who has studied French for years is as awkward and nonplussed in a Paris drawing-room as he would be in the drivers' seat of an aeroplane." Our instruction in composition, Dr. Butler tells us, is wrong because it emphasizes writing, instead of reading; and in teaching government, attention has been paid to machinery and to details, rather than to a comprehension of the principles upon which good government and republican institutions rest.

The question that will be asked of the colleges will be, "What can the university do to fit men for life?"

The war has shown the importance of a thoro mental training. The officers were selected from the men who had disciplined their minds and bodies rather carefully before the war. This

training the university aimed to give.

It will be the duty of those who have been at home to bring back the proper optimism and stability of thought that has been lost by some who have gone into the training camps—who have forgotten that because of these changed conditions they must again cultivate individual opinion and resourcefulness.

It will be difficult for some who have enjoyed positions of some importance in the army to return to the proper relation to their superiors. Many must begin nearer the bottom than they had hoped. Such men must adjust themselves to these menial conditions, in order that they may advance the higher.

To those returning from France, there will be inspiration that the United States is a vast country, farmed by machinery. We shall all need a larger conception of the methods of dealing with agricultural matters.

WHAT EVIL IS THERE IN READING?

As commonly practiced, there are as great evils in reading as there are benefits. Too frequently we clutter our minds with newspaper stories and sensations. To read of the daily murders, amplified details of court proceedings, puny opinions of politicians and influenced remarks of petty writers, is so to fill the mind's time that there is little opportunity for reading to interpret the greater human affairs of which we are a part. A part—whether these events are transpiring before our eyes today or belong to a long passed yesterday. We must read to understand and interpret.

Life is short and books are many—which shall we read in order to live more fully? Two sorts of books present themselves for our attention—books based on facts gained by experience and

experimentation; and books written from the realm of fancy and of thought. Fiction may be inspiring when it deals with the lives of people who are solving the problems we are facing, altho we are apt to spend too much of our time reading the impossible adventures of unworthy and unnatural characters. Sometimes the best word for us is gleaned from wit and humor. Poetry suits some persons best because it gives expression to the loftier thoughts.

We must gradually cultivate our interest. This does not mean that we must necessarily read Kant, Plato or even Dickens.

Let us read books of biography, which always interest us when such are descriptive of the lives of true characters not excessively idealized. Let us read books of history which deal with the progress of civilization rather than dates and insignificant squabbles. Let us read books of science when such are written with the enthusiasm inspired by truth. Let us read books of philosophy which lead us to examine our individual resources and comprehend life more fully. Let us read books of art, painting and music, so that we may better realize the importance of beauty in form, color and sound.

The day of the criticism of "book-farming" is past. No man's individual experience is sufficient of itself properly to conduct the commonest farm operations. There is a discoverable "why" for everything. Some one has written this for us. As J. S. Knox has said, "If a man must learn by experience alone, he will be bankrupt before he gets it. The whole civilization of the world is the result of learning from the experience of others." Herschel gave the hint to Laplace to formulate the principles of the system of the stars. Bacon pointed the way to experimentation.

The earlier civilizations, especially the Roman, gave the fundamentals of good agriculture. Moses gave the trend to our modern morality. Whether we receive these heritages by word of mouth or not, they are found in writing somewhere. Every operation of nature is waiting for interpretation and a harness. The seers have read, and digested and expanded. To us there is an equal opportunity. If we read the lives of the great men—of the struggles thru which they have successfully passed, such reading will be an inspiration to us in meeting our own difficulties, so that we may gradually come to look at life with something of the vision these heroic souls possessed. "The Humanitarian" says "Most of us can become greater, but very few of us—great."

Is it improper to ask, "What evil is there in *your* reading?" Is it not true that it is mere thoughtlessness and intellectual laziness that causes us to read purposeless newspapers and books rather than constructive, expansive ones? The habit of chosen reading should be incorporated in our New Year's resolution. The habit of drug-ging our minds must be stopped.

MAKING THE MOST OF YOUR JOB

Mr. Clifford Lowther, the advertising manager of the Florists' Exchange, some time ago wrote this thought about sticking to our own jobs. He says,

"There is nothing so popular in all this wide world as the desire we all have for the 'other fellow's' job. How many times have you said: 'If I only had 'So-and-so's' job, this world would look real good to me.' Probably more times than you are aware of."

We were looking thru the Situations Wanted columns of a city daily recently, and after reading all the ads, we came to the conclusion that nine-

tenths of those looking for a change occupied positions that held the same possibilities as the openings they were advertising for. Yes, it's one of the jokes of life that we are ever overlooking the opportunities nearest us.

The greatest successes are the men who have been wise enough to realize that their jobs, no matter what the size or responsibility, have been worth the best that is in them. So, when you feel like changing that job of yours, which, more times than not, holds the same opportunities that you would advertise for, ask yourself whether you are doing all you might be doing with the present job. Then, if you find there is room for improvement, go down to the desk, the counter, or, if you are an outside man call on the next prospect, with the same ambitious feeling that you would have if you were holding down a "brand new" job.

In the same strain, the *Business Philosopher* writes:

"While you are wasting your time, envying the empire achievers, the race masters, you are losing an opportunity for enlarging your ability, for promoting your own advancement. While you are wondering what that mysterious power is which changes a mere operative into a superintendent, a floorwalker into a proprietor, a bell-boy into a hotel manager, a chorus girl into a star, a poor unknown lawyer into a Blackstone or a Choate, a district school-teacher into a college president, a soldier in the ranks into a distinguished general, there are those with no more ability than you have who are actually making this transformation right before your eyes.

Dig down into yourself; there is where you will find the key which will open the door to the place above you.

Most of us look outside instead of inside for our motor force. Since time began, the human race has been hunting for help to bear its misfortunes, to improve conditions, to alleviate pain and disease, but ever seeking relief from without. We are just beginning to find that the help we have been crying for and looking for is inside and not outside of us. The power to obtain anything we need or ever can want is within us, awaiting release, opportunity for expression."

DON'T STOP!

By RUDYARD KIPLING

If you stop to find out what your wages will be
And how they will clothe and feed you,
Willie, my son, don't you go on the Sea,
For the Sea will never need you.

If you ask for the reason of every command
And argue with people about you,
Willie, my son, don't you go on the Land,
For the Land will do better without you.

If you stop to consider the work you have done
And to boast what your labor is worth, dear,
Angels may come for you, Willie, my son,
But you'll never be wanted on Earth, dear!
Copyright, 1914, by Rudyard Kipling.

Compete with your possibilities, instead of your neighbor; your neighbor may be setting a slow pace.—*Printer's Ink*.

WISDOM OF THE ANCIENTS

"If I am asked what is the first point in good husbandry, I answer, good plowing; what the second, plowing of any kind, what the third, manuring."—*Cato, the great Roman writer*.

A PROPER START

"So your husband refused to buy you an automobile?"

"Not exactly refused; he said I ought first to become familiar with machinery in general, so he bought me a sewing-machine."—*Boston Transcript*.

Campus Notes

Professor C. S. Plumb of the Department of Animal Husbandry, has been asked to supervise the teaching of animal husbandry in the American army cantonments in France during the period of demobilization. After considerable delay owing to physical examinations and war departmental red tape, he will probably sail for France early in January. He is taking along considerable illustrative material, including fifty sets of lantern slides for use in the Y. M. C. A. huts.

The 1919 Makio, altho 150 pages less than the usual size, will make its appearance late in January. The price, \$2, will remain unchanged owing to war time conditions and a limited edition. The main feature of the book will be a review of Ohio State in the war.

On December 10 the first two companies of the S. A. T. C. received their discharge, after having received their uniforms and pay. Major Oliver addressed the entire unit December 9th in the University Chapel, at which time he called attention to the criticism directed against the S. A. T. C. in recent editorials in Columbus papers, and asked the men to be loyal to the University and the army by telling the folks at home that altho conditions were not all that they might have been, nevertheless the best was done that was possible under the circumstances, and the health and comfort of the men were at all times the concern of the authorities. He denied the statement that the institution had been run on a "might is right" policy. The entire S. A. T. C. was demobilized by December 16.

With the demobilization of the S. A. T. C. at the University, the Ohio Union cafeteria is once more open to the girls of Ohio State as well as to the faculty. This is the first time in two years that girls could obtain their meals in the Union, and the first opportunity for students and faculty since the aviation school was in full blast.

There are forty-eight gold stars on the University service flag, of which fourteen represent those killed in action, and six those who died of wounds received in action. Of the remainder, twenty-two died of disease in this country and abroad, four died in this country by accidents, and two lost their lives at sea.

In addition, eight men of the S. A. T. C. died of disease.

The holiday recess for 1918 extended from 6 P. M. Friday, December 20, to 8 A. M. Monday, December 30, with classes as usual on New Year's Day.

The King Avenue Methodist Church, which was destroyed by fire some weeks ago, is now holding services in a tabernacle located at Tenth and Neil Avenues.

Of the three hundred and forty members of the Senior Class of 1919, two hundred are women. This is the first time in the history of the University that the girl graduates outnumber the men.

Upon the insistence of President Thompson, the S. A. T. C. men were not discharged until they had been com-

pletely outfitted with underwear, shirts, socks, suits, hats, and overcoats. Altho the question of size was overlooked by the authorities, the inclination of the students to trade soon remedied that omission.

The Barracks, located east of the Engineering Laboratories, which have been used successively by the aviators and the S. A. T. C., will be used for exhibition purposes for the short courses in Agriculture this winter. The final disposition of the buildings has not been decided upon. About twenty men still remain in the hospital. All the buildings which have been used for the Student Army will be used for regular classes.

It is estimated that about seven hundred men will withdraw from the University as a result of the demobilization of the S. A. T. C.

Rev. W. K. Anderson, University Methodist pastor, has resigned his position to become community organizer for Columbus and vicinity under the Joint Committee on War Productions Communities of the Federated Council of Churches.

Professors J. W. Wuichet and C. T. Conklin of the Animal Husbandry Department have recovered from the "flu" and are once more in their office.

Professor A. B. Dann, his wife and infant son, have been ill with influenza at their home on North Fourth Street.

Professor M. C. Kilpatrick spent a week in Protestant Hospital as a result of contracting the "flu" while doing Extension work. Mrs. Kilpatrick, who recently recovered from a serious ill-

ness, has returned to her home at Elizabethtown, Pa., where she will remain for six months during Mr. Kilpatrick's absence abroad. Mr. Kilpatrick will sail for France to take up his work for the American Committee for Devastated France as soon as he regains his strength. He will work under the supervision of Miss Anne Morgan of New York City.

Plans have been completed for the holding of Farmers' Week at the University, January 27-31, 1919.

Because of the prevalence of Spanish Influenza, only a few Farmers' Institutes are being held thruout the State. During November only nine out of thirty-nine were held.

Professor James Halpin, professor of Poultry Husbandry at the University of Wisconsin, has been engaged to deliver a series of five lectures during Farmers' Week, January 28-30. Professor Halpin has been connected with the University of Wisconsin for the past seven years, and established the Poultry Department at that institution. Two of the subjects he will discuss are "Feeding and Rearing Chicks in 1919" and "Raising Geese on the Farm."

Delaine Merino Sheep, B & C Types

The Big Ones Bred for Wool and Mutton

FRANK H. RUSSELL

Rural Delivery No. 3, Wakeman, Ohio.

MONEY IN DAIRYING

Inquiring Lady—How much milk does your cow give a day?

Truthful Boy—About eight quarts, lady.

Inquiring Lady—And how much of that do you sell?

Truthful Boy—About twelve quarts, lady.—*Exchange.*

Home Economics Department

COMMUNITY BETTERMENT AND THE VALUE OF HOME PROJECT WORK

By DEAN ALFRED VIVIAN, MAUDE G. ADAMS and TREVA E. KAUFFMAN

(Dean Vivian has the supervision of the vocational work in Home Economics for the State. The Misses Adams and Kauffman are assistant state supervisors of Vocational Home Economics. Better homes thru a broader interest in the varied activities of home life is the plea. The basis of useful community betterment is dependent upon successful home management.)

By Dean Alfred Vivian:

A COURSE in Vocational Home Economics without a home project would be like the play of Hamlet with Hamlet left out. The home project is what puts the "vocational" into the home economics. Much of the work in home economics which is now given in the high schools is conducted under unreal conditions. The school laboratory in no way duplicates the conditions in the average home. Home making is now recognized as a vocation, indeed, as the vocation *par excellence* for women. The girl who is learning to be a homemaker, therefore, should do a part, at least, of her work under real home conditions in real home surroundings. The home project, then, becomes not only the best way of teaching the practical side of home economics, but it is also the best means of arousing the interest of the pupil in the work, and of holding her interest after it is aroused. To do this, of course, the home project must be one of some dignity and of undoubted usefulness, for this new type of vocational home economics education is meant to be used, and not to serve as a mere academic ornament.

While the home project is intended primarily to teach home-making to the pupil, it does, incidentally, help to educate her whole family, and in some cases the entire neighborhood. Can you not imagine what it would mean to a

community to have from forty to eighty high school girls each working earnestly upon some practical and worth-while problem connected with the home? The tactful teacher working thru such a group of girls can exert untold influence for the betterment of the home methods of the entire community. The teacher who longs to render a real service to her school district will be delighted with the results to be obtained thru the home project method of teaching. The teacher who thinks more of her salary than of service has no place in Vocational Home Economics, for after all the success of the home project depends more upon the teacher than upon anything else.

By Maude G. Adams:

It has always been the desire and aim of the true spirited home economics teacher to help the pupils in her classes to become better home makers. But in the majority of elementary and secondary schools where home economics (or domestic science) has been taught, time allotted for the work has been in such short periods, and conditions have often been so poor that teachers have been able to give only fragmentary parts of home economics, such as a little sewing or a little cooking, and these subjects have been scantily related to the rest of the broad realm of home making.

No one can possibly feel that our ef-

forts in times past have all been wasted, but we realize fully that much more must be done to vitalize the home making work taught in the classroom.

The chief aim of vocational home economics, as it is gaining impetus thru federal aid from the Smith-Hughes fund, is to foster and strengthen every possible means of helping the girls and women of this country to become more efficient, all-round home makers. We are no longer content that we have helped a girl to be a little better cook, or have taught her how to do a little plain hand sewing, but we now make it possible for her to take, during her training, enough home economics subjects and enough of each subject so that the different phases of home making will be quite thoroly covered, and each phase in its proper relations to all the others.

The vocational home economics leaders in Ohio feel that one of the surest ways of bringing about the desired results in our teaching is thru the development of home project work with the pupils.

If rightly carried on thru six months of each high school year, home project work should make school work function in the home in a truly helpful way. It should bring the parents and teachers into much closer sympathy with each other, and thus strengthen any efforts in behalf of the pupils. It should enable the teacher to give each girl those elements in her school work which would help her to develop to her fullest possibilities under her own home conditions. It should help to raise living standards in many homes. It should bring a girl into a truer realization of what her parents are doing for her, and help them to give a truer value to the home responsibilities she assumes. It should tend to dignify some of the homelier

everyday duties about the house, and teach how necessary each is, if well done, to making the whole home machinery run smoothly. It should teach the value of time, of money, and of effort. It should make a girl proficient to a degree in many phases of home making, and enable her eventually to assume the responsibilities of a home in an intelligent, self-reliant way which must insure a large measure of happiness and satisfaction not only to herself and to her immediate family, but to the community in which she lives.

By Treva E. Kauffman:

Before the days of large community centers, when each home represented a center of itself, the little, one-room, log school-house gave boys and girls the principles of reading, writing, spelling, and arithmetic. The home made possible the daily application of these principles and many others.

The daughter in every home in those days was taught not only preparing food, but preservation and production; not only the making and repair of clothing, but spinning of yarn and weaving of cloth; not only the use of soap, but the actual process of making it. It was necessary to produce fuel for heating and cooking, candles for lighting, as well as many of the furnishings of the home; this the daughter was taught also by her mother.

Since the home is no longer such a productive center, and many processes have completely passed from the home to the factory and store, the daughter no longer becomes familiar with all phases of home making. The schools have taken up instructions in many problems that the home life used to give,

The new note in this instruction—new in method, yet old in substance—is the study of home problems, or home

life in its relation to the community. Much good instruction may be given along this line at school, but if the daughter does not make the practical application to the home and community, very little has been accomplished.

Home project work makes it possible for the daughter of the home to work out the principles she has been taught at school, making the practical application at home, thereby cooperating with her mother to solve various problems.

The home project work must be supervised by the director of home economics, who stays in the community for the year, and becomes a community worker as well as a teacher.

This study of home making has been made possible by the passing of the new federal Smith-Hughes vocational law. It seems fitting that such a law should have been passed for home making, because every daughter must live in a home and many become directors of homes, so all should know the principles of home making.

BOY AND GIRL CHAMPIONS

The following champions in boys' and girls' club work conducted by the Agricultural College Extension Service have just been announced:

Pig Raising.—Raymond Ebberts, Covington, Miami County. He raised two pigs that gained four hundred and fifty-five pounds in one hundred and four days at a cost of 9.1 cents a pound.

Gardening.—Fred Grossman, South Euclid, Cuyahoga County. He made a profit of \$128.50 on garden products raised on one-fortieth acre.

Potato Growing.—William Lenga, Berea, Cuyahoga County. He harvested forty-seven and seventy-five hundredths bushels of potatoes on a tenth acre at a profit of \$78.18.

Corn Growing.—E. Clare Roberts, Gaysport, Muskingum County. He raised one hundred and four-tenths bushels of corn containing a moisture content of twenty-nine and four-tenths percent, or ninety-two and fifty-seven hundredths bushels when reduced to a moisture content of twenty percent.

Food.—Florence Weber, Wauseon, Fulton County. She canned four hundred pints of fruit and five hundred and seventy-six pints of vegetables, most of which was produced in her own garden. She also canned fifty quarts of meat, mostly chicken. She realized \$235 for her work.

Poultry Raising.—Meta Bunge, Archbold, Fulton County.

Clothing.—Sarah Freeborn, Mesopotamia, Trumbull County.

A number of the winners in boys' and girls' club work will receive free trips to Columbus during Farmers' Week at the Ohio State University College of Agriculture from January 27 to 31.

HELPING THE FOOD ADMINISTRATOR

One industrious war-gardener is pictured as working busily and reflecting on the virtue of raising his own food-supply.

"If everybody grew his own vegetables and ate less meat," he soliloquized, "we'd put old Bill on the bum in a hurry. This is tough work, but I'll stick to it if it kills me. I'm with Hoover on this."

At this point a fine assortment of earth-worms was unearthed. The digger's reflections immediately shifted to a shady stream and the final scene shows him happily fishing.

"Oh, well," he reflects to soothe his conscience, "vegetables or fish; it's all the same to Mr. Hoover."—*War-Garden Guyed.*



Charles C. Ensign, '14, is farming near Defiance, O.

Joseph C. Hale, '14, is connected with the Pine Milk Company, Akron, O.

Ralph W. Jordan, '14, is county agent in Cuyahoga County.

Charles W. Holdson, '14, has recently been appointed assistant professor of Dairying at Ohio State University.

Lott E. Bechtel, '16, is superintending one of the milk condensing plants of the Nestles Food Co. at Louisburg, Pa.

W. F. Jackson, '16, is engaging in farming and cattle feeding on a small ranch at Luther, Mich., which is located in the cut-over region. "Jack" reports that the neighbors are few and far between, the nearest clearing being two miles from his ranch. Much of this country is being taken up by ranchers of the Southwest, who pasture sheep and cattle.

George P. Samman, '14, is in charge of marketing at Cleveland under the U. S. Department of Agriculture.

L. E. Thornberry, '16, died overseas late in November. He was teaching agriculture at Leroy, O., just before entering the service.

S. B. Sink, '15, has left the University of Maine and is now engaged in county agent work at Valparaiso, Ind.

W. I. McCann, '15, died of influenza at Ithaca, N. Y., last month. After graduation he took post-graduate work at Cornell University and was an in-

structor in pomology there at the time of his death.

D. W. Griffin, '14, who has been an instructor in Ewing Christian College, Allahabad, India, for nearly four years, expects to return to the States now that the war is over. His chief mission to this country will be the purchase of machinery to be sent to India. Sam Higginbottom and Wm. Bemhower are two other Ohio State men associated in the agricultural education at this college.

Glen Norton, '14, who was farming at Lodi, O., was kicked by a horse last summer and died from the injuries received. He leaves a wife and one child. During his senior year at State he was president of the Saddle and Sirloin Club.

W. W. Rummell, '16, participated in the great drive of the marines that checked the drive of the Huns toward Paris. After more than three months in hospitals because of a machine-gun wound, he got back to the lines to go thru the entire St. Mihiel drive without a scratch only to get the flu the next day after being relieved. After another siege at Bordeaux Hospital he was placed in a marine guard company at a French seaport town.

W. G. Phillips, '15, lives on the home farm among the hills of Harrison County, Ohio. General farming with some livestock is practiced.

W. Howard Humphrey, '15, is manager of the home estate near Portersville, Pa. He is building up a farm that is regarded as one of the best in Butler County, and has the largest purebred Jersey herd of that section. The results of Ohio State teachings are becoming evident in both the cattle and the land.

T. E. Richmond, '13, has left the employ of the Ohio Experiment Station and is now located at the University of

(Continued on page 301)



(Miss Sellers was graduated from Ohio State University in 1913, and early last year was assigned to the United States Base Hospital 22 as dietitian. This letter is of interest not only because it gives an accurate insight into the construction and management of an army hospital in France, but also because of its similarity to that phase of institution work in the United States. The reader may also learn something of the life and experiences of the American woman in Overseas Service, which will continue so long as our troops are stationed in Europe.)

October 15, 1918.

We are located in a hospital center near Bordeaux. There are seventeen units, each of which has a capacity of two thousand five hundred beds, and our convalescent camp, which has a capacity of five thousand beds. All the buildings are about alike: they are long, narrow, one-story army barracks.

The large kitchen connected with our unit is one hundred and four by forty feet. It is built entirely of wood. There are utensil racks, bread rails, tray sinks, serving and cooking tables. The racks are built in sections, and are removable, so that they can be cleaned. The sinks are zinc lined, and there are drains along the sides of the cement floor of the kitchen. We use seven iron cauldrons for cooking, besides a sixteen foot range, and four large army ranges. The cauldrons, or French *marinettes* as they are called, are used for boiling, stewing or pot-roasting. There is a store room, a butcher shop, and a large built-in refrigerator. This kitchen is used for regular diets only. We have over three thousand patients who are served in the two mess halls adjoining the kitchen.

The diet kitchen, connected with the main kitchen, is fifteen by twenty feet, and we prepare from five hundred to seven hundred diets here which include liquid, soft, light and varied special diets. This work is done by trained diet cooks. People may say there is no necessity for special diet work in this type of hospital, but it has proved the most necessary subdivision of the mess department.

We have taken over another unit of buildings, also four wards of wounded officers. There is a large kitchen and a diet kitchen in connection

with the second unit, and a separate kitchen and mess hall for the officers.

Getting food is no easy matter. We must haul everything five or ten miles. Ships containing cargoes of some particular articles are sunk, then we have to wait until another comes over. For example, we have not had a box of cornstarch for a month, nor any hams. At times we can get only rice, beef, and canned tomatoes. This makes it very hard to plan menus. However, large quantities of fresh vegetables and fruits are available in the surrounding territory. Butter is \$1.00 per pound, pork 80 cents, and veal 50 cents. Eggs are 7 cents apiece, and when we can get them we use about eight thousand a week.

The base hospital dietitian outlines all menus for the nurses, is responsible for the cooks, sees to the sanitation of all kitchens, and watches all the waste. At present, I manage the nurses' mess, in which there are French cooks and waitresses. An aide acts as interpreter for the unit, and knows a good deal about a kitchen, altho she is not trained. She also helps with the management of the cooking and serving.

I came to manage a thousand bed hospital, but at present we have about five times that number. According to the latest official report every hospital in our section is doing one hundred and forty percent of its capacity. We have a hospital train every day, or sometimes every other day.

We have two wards of German wounded. You can imagine what a curiosity they were at first. They were badly wounded when they came in, and scared to death, too. They are fine patients. Some of them are now able to do light labor, and they are willing and glad to do it. One night when we were receiving a big convoy, some of them turned in and helped get the American wounded in beds, gave them baths, and cared for them in a remarkable way.

There are several camps around us which make rather a social community. We give dances when time permits, and always ask all our neighbors. Then they in turn have parties, too. Sometimes we ride horseback. The American men are very anxious to do anything for the American women over here, and I fear we are getting spoiled.

I wouldn't be missing this experience for anything, yet I should not like to have it repeated. I hope I'll never have to feel so much love for my country again, but if necessary I will.

Sincerely yours,

SARA SELLERS.

ALUMNI NOTES

(Continued from page 299)

Illinois, where he expects to continue his studies toward the doctorate.

Luman Tyler, '17, is successfully operating two hundred and sixty acres near New Paris, O.

Paul Clark, '17, is in France with the Quartermaster Corps.

George Wolf, ex. '12, is farming the home farm near Campbellstown, O.

L. M. Evans, '16, is located at Kings-ton, O., and employed as county agent of Ross County. Mr. and Mrs. Evans announced the birth of twin daughters on December 21st.

L. L. Rummel, '15, is located in Cleveland, where he is employed as associate editor of the *Ohio Farmer*. Mr. Rummel is paying particular attention

to the livestock and dairying features of this publication. Prior to going with the *Ohio Farmer* Mr. Rummel served as editor of publications at the Ohio Experiment Station.

Clarence M. Baker, '16, is editor of publications at the Ohio Experiment Station, and managing the home farm eight miles from Wooster.

J. B. Markey, '16, is farming the home farm near Eaton, Preble county, Ohio. Incidentally Markey is indulging in registered Shorthorns.

John W. Wuichet, '08, is employed as livestock specialist in the Extension Service of the Ohio State University.

Donald Acklin, '08, has been appointed Field Inspector of the newly established Federal Land Bank, with headquarters at Louisville.

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Beginners' Class—Tuesdays and Thursdays—7:30.

Assembly—Fridays and Saturdays—8:15.

Daniel's Six-Piece Orchestra.

Private Lessons by appointment.

Beginners' Class—Monday, 3:00.

Advanced Class—Friday, 3:00.

Juvenile Class—Saturday, 2:00.

As the above calendar will be followed during the entire season all interested in dancing should cut out this page and reserve it for future reference.

For information pertaining to classes or assembly, call the phones given below and all questions will be cheerfully answered.

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SUCCESSFUL MANAGEMENT. J. S. KNOX and others. Knox School of Salesmanship and Business Efficiency, Cleveland, O. 515 pps. \$3.00.

This book will be of interest to every farmer, student, resident of town and city. It will point out a more efficient life. The questioned discussed are illustrated with striking examples from the commercial and agricultural communities of Ohio. Every farmer is a salesman. It is true, he sells his wares in a different way from the store clerk, but his dealings with others should be governed by the experience gained from those whose chief duty it is to buck a more highly competitive market.

A few chapter headings are as follows:
 Retail Store Methods That Have Produced the Greatest Country Store in America
 Mail Order Houses
 How To Sell Your Services
 Guide Boards to Success and Failure
 How To Talk in Public
 Retailing
 Cash or Credit—Which?
 Community Efficiency
 Foreign Trade and Our Need of an Adequate Economic Program
 Financial Efficiency
 Why Do Not Americans Save More?
 Household Economy and Efficiency
 Business Ethics.

As Mr. Knox stated in his talk before the County Agent Conference at Ohio State University, the *principles* of good business, salesmanship, and management are applicable to any business, the *methods* differ widely. Quoting from the book,

"One of America's greatest business men was asked how he was able to originate the many

ideas and methods which made him so successful. He replied that he originated none of them. He simply kept his eyes and ears open and when he saw or heard a good idea he adapted it to his own needs. There is one supreme difference between a successful man and a failure. The successful man recognizes a good idea the minute he sees or hears it. He immediately utilizes it. The unsuccessful man sees or listens to the good idea and says 'That is a fine idea,' and then immediately proceeds to forget all about it. It goes into one ear and out of the other."

An animal learns from experience, but nothing from others; a man learn a little from experience, but the whole civilization of the world is the result of learning from the experiences of others. Without the principles, and with experience only, man learns almost nothing.

A. C. H.

A DAUGHTER OF THE LAND. Gene Stratton-Porter. Garden City, L. I. Doubleday, Page & Co.

Gene Stratton-Porter has written another of her pictures of the back country. This story deals with the struggles of a girl with stamina and a strict sense of self-respect, who wrestles with her adverse surroundings, which result from many setbacks thru home conditions and a wrong marriage. She calmly and doggedly pursues her course despite all handicaps. At times we fail to understand her, but she comes again into our admiration when we realize her hereditary tendency toward stubbornness and tenacity. Kate Bates is a resolute woman; some of the other characters are, perhaps, overdrawn and inconsistent. If the reader has enjoyed the other works of Mrs. Porter, this book is surely worth reading.

A. C. H.

WINTER BOTANY. William Trelease. Urbana, Ills. Published by author. 434 pages. Pocket size, fully illustrated. \$2.50.

This book of keys for the determination of trees and shrubs in their winter condition is one of the most comprehensive keys yet published which can be easily carried in the pocket. It should be of value to the high school or college teacher of botany as well as those engaged in landscape gardening work. Unlike the keys published gratis by the departments of forestry in our colleges, this key includes the cultivated plants as well as the wild ones.

It is a companion book to "Plant Materials of Decorative Gardening," which is useful in naming shrubs and trees when in leaf."

The illustrations are most helpful in that they substantiate the correctness of the determinations when using the key. A. C. H.

MANUAL OF VEGETABLE GARDEN INSECTS. C. R. Crosby and M. D. Leonard. The Macmillan Company, New York. 391 pps. \$2.50.

In the preparation of this book the authors have sought to bring together in a condensed form the most up-to-date facts from the mass of literature pertaining to insect pests of a special line of crops—those associated with the vegetable garden—with special reference to the most practical measures for their control.

This has been done in a brief yet comprehensive manner, in a style easily understood by the amateur and commercial vegetable grower. The style is not technical, nor yet is it what is commonly called popular, but consists in the statement of facts without flourish and with the minimum of technical terms consistent with accuracy and thoroness.

The descriptions of the insects in their various stages, together with the numerous pen and photographic illustrations, render accurate identification by the practical and amateur grower an easy matter in most cases. No doubt the use of a greater proportion of photographic reproductions and additional illustrations would add to the ease of microscopic identification.

The arrangement of the subject matter is such as to appeal to the practical gardener. The most common insects feeding upon a specific crop or group of related crops are treated in single chapters, thus making the information of easy access. The listing of insects of minor or occasional importance at the conclusion of each chapter, with page references to other parts of the book where detailed accounts are given under the head of their most important host plants, is another very commendable feature lending itself to ready reference.

Tho the practical grower is more interested in control of insects than in extended descriptions, the life cycle of any insect is a primary consideration in the application of control agencies. In this book, the development of insects from the egg to the adult stage is treated in such manner as to indicate, not only, the stage at which most damage is done, but the

most vulnerable and practical period of attack for their destruction. Control methods and agencies, while not extensive in treatment, are such as may be regarded most feasible and reliable.

The concluding chapter of the book deals with the gross morphology and physiology of insects, the types and forms of insecticides, their characteristics, the formulae for preparation and methods of application.

As a whole the book fills an important niche in the halls of bookdom, being especially adapted to the use of practical growers or students specializing in gardening courses. The list of references following the discussion of each insect supplies a source of abundant information of a more technical character for the benefit of those who may desire the more elaborate scientific discussion.

L. M. MONTGOMERY.

THE JOURNAL OF A COUNTRY WOMAN. Emma Winner Rogers. Eaton & Mains, New York. 116 pps. Good illustrations. \$1.25.

In this book, the author has enabled us to know the delight of living near to nature, of founding a country home, and withal to let us know the simplicity and sincerity of this life, with its environment of natural beauty. Here is the call from the city to the country. Here is time for an occasional peaceful hour to think of our daily living. These words, as I found them, tend to lend their charm: "We are getting into the longest days of the year, and how wonderful they! It is daylight before four in the morning and the bird chorus begins with the earliest dawn. By sunrise it is over, tho birds here and there are twittering and singing solos. Darkness does not settle down until eight in the evening, and one has the sensation of living more in these long, bright days than in the shorter ones.

"I like to be out of doors by half-past five and drink in the dewy freshness of the early morning. It gives one a good start for the day, and it is really necessary on a farm to improve the shining hours of the summer time, the seed time and harvest days, when everything is clamoring for care."

Then we find the country home so wonderfully described—its fireplaces with the hearth fires burning 'mid the andirons; the antique candlesticks; the shelving on one side of the room filled with books. Surrounding the home is the garden, with its arbor, its fine fruits and

vegetables, and its old-fashioned flower garden that makes its instant appeal to the imagination.

This book can well be read by every one who may feel the delight in outdoor life and the finer and truer feeling for nature. Greater health and happiness is to be found in such a life, for there one has the wonderful accompaniments of atmosphere of woods and flowers.

EVA A. SMITH.

PEACH GROWING. H. P. Gould, The Rural Science Series. The Macmillan Company, New York, 1918. 426 pps. 51 illustrations. \$2.00.

It is safe to say that no one in America is better qualified to write an authoritative book on the subject of peach growing in America than Professor Gould. He has been Government pomologist for a number of years and in this capacity has had unusual opportunity to study peach growing methods at first hand in all portions of the country.

In this volume the author has covered the entire subject of the peach, beginning with its history (which portion is necessarily brief), then follow adequate discussions of propagation, practical orcharding, harvesting and marketing.

The reviewer's test for the general reliability of a book on pomology of this nature is the manner in which the vexed question of pruning is handled. Consequently the chapter on pruning has been studied with care and we are pleased to note that we know of no more sane and reliable exposition of the subject.

In treating other topics, the evidence of experimental data the country over has been drawn upon largely, thus giving the reader the latest and best information to be had.

"Peach Growing" can be commended to the pomological student as being a reliable and up-to-date exposition of the subject, and to the practical grower as a storehouse of useful information that will be an inspiration and an invaluable aid in helping to solve the many problems which arise in peach growing.

W. PADDOCK.

"I've got just this much to say consarnin' oleomargarine," said Josh Hicks, of Butterfield Dairy, "what with the colorin' they do to it, it seems sort of like an ugly woman that can't git no admirers until she uses paint."

GOOD WORK OF OHIO EXPERIMENT STATION

While most of the original investigations of the Ohio Experiment Station at Wooster are still in progress, the thirty-seventh annual report shows that the work of the thirteen departments has been devoted particularly to investigations relating to agriculture during wartime. During the past year sixty thousand copies of bulletins have been mailed monthly to residents of Ohio containing information on more than one hundred different agricultural subjects. Press bulletins have also been sent to six hundred newspapers in Ohio weekly. Copies of the annual report are mailed free to residents of Ohio on request.

Questions relating to soil fertility and crop production have been given particular attention during wartime; experiments covering more than twenty-five years of work are available, so that the economy of practically any means of crop production can be determined from long-time tests. The increase in production of livestock products is also closely associated with the growing of more cereal foods.

The Experiment Station now offers its assistance to Ohio farmers in the maintenance of soil fertility, selection of varieties of grains, grasses, forage crops, fruits and vegetables; management of orchards and farm woodlots; the prevention of fungous diseases of crops; the feeding of animals and the control of injurious insects. The Station does not assist in the inspection of orchards, examination of foods, treatment of contagious diseases of animals, or the analysis of fertilizers or drinking water, as these lines of work are lodged with the State Department of Agriculture and the State Board of Health, at Columbus.

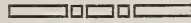
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Farmers' Week

Jan. 27-28-29-30-31

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125 Lectures and Demonstrations by
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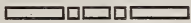
Annual Meetings of Ohio State Dairymen's Association, Ohio State
Horticultural Society, Ohio Vegetable Growers' Association, Ohio
Rural Life Association, Ohio Beekeepers' Association, Ohio
Percheron Breeders' Association, and Many Others.



Eleventh Annual Corn and Grain Show

EDUCATIONAL EXHIBITS A SPECIAL FEATURE

Second Annual Ohio Farmers' Tractor Demonstration



WRITE FOR COMPLETE PROGRAM

THE DAIRYMAN'S FERTILIZER PROBLEM

Two important fertilizing elements, phosphorus and calcium, must be supplied to the soil, particularly in dairy sections, to maintain fertility as determined by specialists at the Ohio Experiment Station. The need for these elements is based on experimental evidence, but also upon the fact that some of the hungriest soils for calcium and phosphorus thus far found in Ohio are those on which dairying has been the leading industry for almost fifty years.

It has been found that the milk from an average cow in a year if sold from the farm will carry away as much phosphorus as will be found in twenty bushels of wheat or thirty bushels of corn, and as much calcium as would be found in two hundred and fifty bushels of wheat or three hundred and seventy-five bushels of corn. This draining away of fertility becomes more acute each year until in some sections the land fails to respond to the demands made upon it.

Fertility may be maintained, however, by returning these elements to the soil in purchased feeds and fertilizers and by liming. The purchased feeds tend to balance these elements sold off the farm thru the milk when the manure from the livestock is carefully saved and returned to the land. The use of acid phosphate as a fertilizer also replaces a considerable amount of the phosphorus taken out of the soil thru dairy husbandry, while the application of lime and limestone furnishes the needed calcium.

THE DAIRY SITUATION

In the recent bulletin (No. 156) of the Missouri College of Agriculture we find conclusions regarding the dairyman's problems which are to be deeply regretted.

In no case were the men who were

producing and selling milk wholesale averaging a profit when all items of cost were considered. A few individual cases of profit were due to particularly favorable contract prices rather than to exceptionally good production.

The producers who retailed milk averaged a net profit of 3.1 cents per gallon. Only in one area of the state did they average a loss and in this case the average production of the herds was the lowest of any group. The large city retailers made the largest profits. They had a margin above cost of production and delivery of 5.5 cents per gallon.

If allowance is made for approximately two cents per gallon express or transportation, the difference in the St. Louis area between the cost of producing on the one hand and the cost of producing and retailing on the other is 3.5 cents per gallon. In the St. Joseph area the difference is 4.9 cents per gallon and in the Kansas City area 5.9 cents per gallon. Considering, for the three areas, all the milk wholesaled and all retailed, the difference averaged 6.1 cents per gallon.

On the basis of the difference between wholesale and retail prices, it appears that central distributors can sell at the same price as farmer retailers with a margin three to four times as large, because milk can be bought wholesale cheaper than it can be produced.

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FARM ACCOUNTING PAYS

Ohio farmers keeping account books made an average of \$250 more than those not keeping accounts, according to one thousand six hundred and thirty-eight records of average farms recently obtained by the Agricultural College Extension Service. On nine hundred and thirty-two farms on which no accounts were kept, the incomes in addition to interest on the investment averaged \$453. On seven hundred and six farms where some accounts were kept the incomes averaged \$702.

In accounting for at least part of the difference farm management specialists at the University say that the farmers with the records are enabled to study their business and modify their practices in accordance with them.

In order to encourage more farmers to keep accounts in a simple and effective way, cooperative arrangements

have been made by the Ohio Bankers' Association and the Agricultural College Extension Service to issue a farm account book. Farmers may secure these from their bankers, their county agricultural agents, or from the Department of Rural Economics of the Ohio State University, Columbus. Farmers who have been keeping these account books during the past year have been enabled to supply required information more readily with regard to the income tax.

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and

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THE COUNTY FARM BUREAU

(Carried from page 273)

Names of hay buyers, together with lots of hay for sale.

Available walnut timber.

List of threshermen.

Amount of grain threshed.

List of tobacco growers.

In Cuyahoga county the fuel shortage of the greenhouse men was put before the fuel administration and coal was secured.

FOOD PRODUCTION CAMPAIGN

One of the features of the farm bureau activities during the late fall was the Food Production Campaign. In this, an attempt was made to stimulate membership in the county farm bureaus for the purpose of lining up the farmers of their respective counties on programs looking toward the most efficient methods of food production.

The membership campaign, still uncompleted, shows that the total farm

bureau membership in the state has been increased to well over 30,000 farmers.

PROGRAMS OF WORK FOR 1919

A summary of the food production programs shows that, in general, the county farm bureaus have committed themselves to the solution as far as possible of the following agricultural problems during the coming year:

Standardization of the varieties of crops. An attempt will be made, for instance, to promote still further the growth of one or two varieties of wheat. Gladden wheat is one variety which has been adopted in several counties.

More extensive growth of legumes.

Formation of breed and livestock associations.

Control of plant diseases such as the cereal smuts.

Educational work in the control of animal diseases such as hog cholera.

Control of insect pests such as the Hessian fly.

Pruning, spraying, and thinning of fruit trees in orchards.

More extensive use of lime and acid phosphate.

Introduction of more tile drainage systems.

Promotion of cow-testing and bull associations.

Development of boys' and girls' club work in agriculture and home economics.

More general use of farm account books and introduction of other farm management demonstrations.

Columbus discovered America October 12, 1492. A later discovery of America was by the Germans July 18, 1918. It cannot be supposed that the Germans will celebrate their discovery by declaring a national holiday.—*National Fertilizer Association.*

The Bucher Engraving Co.

Columbus, Ohio.

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Own Photographs or
Drawings.

AN EQUITABLE FARM LEASE

(Carried from page 289)

ties to protect in every farm lease.

TWO PLANS THAT MEET ALL THE REQUIREMENTS MENTIONED

One plan is to divide the net income in the proportions each contributes to the enterprise. This calls for a valuation of what each contributes, including the rental value of the land and the labor and management contributed by each. Under this plan each may contribute much or little of the operating capital invested in stock, machinery, etc., as interest and depreciation on whatever each contributes are to be paid as farm expenses, just as are all operating expenses, such as seed, fertilizer, feed, threshing expenses and all extra help, out of the gross income. If the tenant's labor and managerial ability are considered of equal value with the rental of the land then the net income of the farm should be divided equally, but if the farm rental is valued at more or less than the tenant's labor the division of the income would vary in like manner.

The other plan is to form an equal partnership and rent the farm of the owner, and pay the tenant a salary as the working member of the partnership. If the tenant has not enough capital to pay for half the equipment he should obligate himself for it. Under either arrangement the owner may retain general management of the farm. The general system of farming should be outlined in the lease, however. Either plan makes the tenant reasonably certain of his salary, and insures him a share of the profits of a good season or good markets. At the same time it gives him the responsibility of part ownership in the equipment. This sense of ownership makes him a better tenant and citizen.

LOOK!

**The Agricultural Student
The Breeder's Gazette
The Ohio Farmer**

ONE YEAR

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The Rich Golden June Color

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**CHR. HANSEN'S DANISH
BUTTER COLOR**

The Color that does not affect the Finest Flavor or Aroma of first-class butter.

Chr. Hansen's Laboratory, Inc., are also headquarters for: Rennet extract and Pepsin substitutes for same, Rennet Tablets and Cheese Color Tablets, Liquid Cheese Color, Lactic Ferment Culture, etc.

Chr. Hansen's Laboratory, Inc.,
Little Falls, N. Y.
Western Office, Milwaukee, Wis.

BRUMBACK COUNTY LIBRARY

(Carried from page 287)

in the world like it. While thousands in city and town owe a debt of gratitude to Andrew Carnegie for his gift of libraries, yet hundreds of thousands might have shared this gratitude if earlier he had considered a larger humanism, as the donor of the Van Wert County Library did, and extended the circulation of his libraries to all the people in the county.

I have just read a description of the Huns' visit to a village in Picardy (Canizy), written by Ruth Gaines, a member of a relief unit in France. All books in the village were burned by the savage mad dogs, except what the mothers saved in flight, a prayer book and a hymnal. After the retreat of the savages, when the store automobile would distribute rations a book might be left, and Ruth Gaines said, "Who so proud, then, as the boy or girls singled out to be the owner of a book for a whole week?" These boys and girls were in rags, cold, living in barns, sheds, or one-room shacks; yet amid such environments, within hearing of shell fire, books were treasures comparable to 'fairy gold.'"

FUTURE POSSIBILITIES

The great possibilities of this library lie in the conviction and consciousness of the people and the management that it cannot do otherwise than grow. It is a living force. The circulation in 1901 of 27,562 books; in 1916 of 102,172; in 1917 (war conditions) of 99,653, is some evidence that the people feel that the library was made for them, and they have become an inspiration for the library, and the library an inspiration for them. Books make power in individuals, a higher quality of inspiration, and make all "feel deeply, think clearly, bear fruit well."

FIRST HIGH SCHOOL STOCK JUDGING CONTEST

On Saturday, the 14th of December, there was held at W. C. Rosenberger & Sons' Shorthorn Farm, the first Live-stock Judging Contest between the high schools of this State having a department of agriculture under the Smith-Hughes Bill. Prairie Depot, Greenspring, and Bloomville arranged for the contest, but because of the influenza epidemic Prairie Depot withdrew, leaving the two schools.

The preparation and practice judging for the contest was necessarily limited, since both schools taking part were closed for several weeks during the best part of the season for such work. Immediately before the contest the following boys were chosen to represent the two schools:

Greenspring:

Claude Suher
Lynn Lee
Clayton Cleveland
Clifton Cleveland

Bloomville:

Harrison DeWalt
Harold Holm
Elvin Seitz
Austin Mayer
Gordon Adams, alternate.

Arrangements had been made previous to the day of the contest for a ring of draft horses, a ring of Shorthorn heifers, a ring of Shorthorn bulls, and a ring of Holstein cows. Written reasons were required on two rings, while simply placings were made on the other two.

Greenspring won the contest, carrying off nine hundred and eighty-eight points to Bloomville's nine hundred and fourteen. A system of awarding points, as found on page 141 of a manual, entitled *Agriculture in the High School*, was used. This manual is sent gratis

by the Department of Public Instruction, Madison, Wis. Professor B. L. Thompson, of Ohio State, acted as judge.

The two schools engaged in the contest feel well repaid for their trouble and hope to meet in a similar way each year, and make this a permanent custom. It has tended to create a greater interest by members of the classes in the important subject of livestock husbandry and has been a very important factor in bringing before the people of the high school communities represented the subject of Vocational Agriculture.

A CORN CHAMPION

James B. Appel, of Lucasville, Scioto County, is the only person to be elected



this year to membership in the Hundred Bushel Corn Club of Ohio. He raised an average of one hundred and one and

ninety-three hundredths bushels of corn to the acre on ten acres with the yield reduced to a uniform moisture content of twenty percent. The percentage of moisture in Appel's corn was twenty-three and six-tenths percent.

This is the fourth man to have this honor conferred on him by the College of Agriculture. The others are E. L. Johnson, Painesville; Richard E. Simmonds, Cleves; and E. J. Riggs, Gallipolis. The highest record is held by Mr. Simmonds with an average of one hundred and two and sixty-four hundredths bushels.

Contestants for this honor are members of the Men's Ten-Acre Corn Contest conducted by the College of Agriculture. The purpose is to promote the average corn yield of the state.

The state champion will receive a cup and each of the county champions, gold medals. These will be presented in person by Dean Alfred Vivian of the College of Agriculture, during the seventh annual Farmers' Week to be held at the Ohio State University, Columbus, from January 27 to 31.

TOWNSHEND AGRICULTURAL SOCIETY.

The Townshend Agricultural Society held its first meeting since the opening of the Students' Army Training Corps, on Monday evening, December 30. It was decided at this meeting to combine the Three-Year Agricultural Society with Townshend Society for the remainder of the year. This union was thought desirable because the membership in the Three-Year Society is unusually small this year, due to the low enrollment in the short course. The meetings will be held the first and third Monday evenings of the month instead of every Monday evening as has been the custom previously. Twenty-five

members were present at the meeting, and from the interest shown it is evident that the old-time spirit is coming back.

IDEALS

Alvin H. Sanders, editor of the *Breeders' Gazette*, feels that there are things in farm life of far more importance than money. He recently expressed this view in the following words: "The things of the spirit are the true treasures of existence. Money-getting is all right, pursued by honest rational methods, but he who builds for the general welfare rather than exclusively for himself is acquiring that which cannot be taken away.

"We urge farmers always to improve their places and their livestock, not altogether for the purpose of bettering themselves and families in a purely material sense, but because of the sweetening, refining influences of right environment."

PLANT BREEDERS FIND NEW TOBACCO HYBRID

From a series of plant-breeding tests with tobacco varieties started by the Ohio Experiment Station in 1903, a hybrid known as Montgomery Seed-leaf has proven to be superior to common strains. The intercross has been developed so as to increase the size and number of leaves without bringing in serious drawbacks such as weakness of stalks and susceptibility to drouth.

This variety, which has been developed at the Southwestern Test Farm, Germantown, has also been grown in a commercial manner by tobacco men in that section. The selected strain took first premium at the Darke County Fair in competition with a class of seventeen entries. In the green stage the stalks are about three feet in length.

The yields of the hybrid are superior

to the common strains of tobacco, one instance being recorded of more than 2,000 pounds to the acre.

PRODUCTION OF CROPS— INCREASE AND DECREASE

In the United States is an increase of yield of wheat, barley, rice, rye, buckwheat and beans, but a decrease in the production of corn, oats, potatoes and sweet potatoes. The decrease in corn is offset by the fact that it will not be subject to as much spoilage. The actual food resources of life-sustaining value are about the same as last year.

The first joint report of the Ohio Department of Agriculture and the United States Bureau of Crops Estimates issued at the State House at Columbus shows a large production of all small grains in Ohio this year. Many counties report "bumper" crops of oats as well as other grains. Spring wheat, where grown, yielded more bushels per acre than winter wheat. The corn and potato crops, because of drouths and early frosts, are somewhat below the ten-year average. Fruit crops are below average. The hay crop is above the ten-year average. Clover seed has been hurt by grasshoppers and wet weather.

Secretary Houston says,

"Two things seem to be clear:

"One is that, for a considerable period, the world will have need particularly of a larger supply than normal of livestock, and especially of beef and fats. We should not fail, therefore, to adopt every feasible means of economically increasing our livestock products. As a part of our program, we should give due thought to the securing of an adequate supply of feed-stuffs and to the eradication and control of all forms of animal diseases."



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Prof. E. Davenport, in his "Principles of Breeding," states that "However worthy and valuable intrinsically the strain may be, it is useless unless the breeder can produce it with certainty and in any desired numbers."

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A 250 lb. Hog at 6 Months

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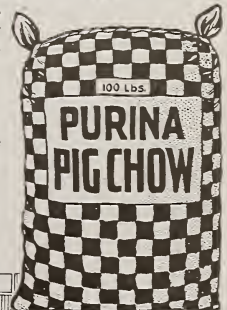
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Pig Chow is a perfect supplement for corn, middlings, garbage, etc. It not only adds the necessary concentrates, but increases the value of other feeds. It starts the little pig off right and furnishes proper nutrients for the maximum development of bones, flesh, blood and fat. It puts hogs on the market 20 to 30 days sooner.

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ADVERTISE YOUR WELL BRED OHIO SEED CORN

Reports indicate that while a great deal of seed corn was selected during the past fall and that most of it is in excellent condition, a good demand for well bred homegrown seed will be experienced next spring. While many farmers selected their own corn for seed, it was taken from varieties that were planted as an emergency. If possible they will secure Ohio corn of the varieties they have been planting.

Farmers who have such seed are therefore being encouraged by agricultural officials to advertise their corn in their local papers and to tell their county agricultural agents in order that the best distribution of it may be had.

MEETING FARMERS' WEEK

With the rapid growth of 80-odd county farm bureaus of the state with 34,000 members, a state-wide organization of the president and officers of these associations is being sought. During Farmers' Week from January 27 to 31 at Columbus, they will complete an organization to be known as the Ohio Farm Bureau Association.

On Monday, January 27, a business session for the election of temporary officers will be held and will be followed with address by President W. O. Thompson of the Ohio State University.

On Tuesday the following farm bureau officers will speak on the subjects noted: The Calf Club, R. E. Frederick, Poland, treasurer of the Mahoning County Farm Bureau; Community Organization for Threshing, S. N. Kerr, Hubbard, Trumbull County Farm Bureau; Improvement of Wheat in Williams County by the Farm Bureau, E. S. Johnson, Stryker, presi-

dent of the Williams County Farm Bureau; The Van Wert County Field Trips, Frank Balyeat, Van Wert, president of the Van Wert County Farm Bureau; Soil Improvement in Clermont County, J. H. Dawson, Batavia, president of the Clermont County Farm Bureau; The Organization of the Athens County Sheep Breeders, H. P. Dutton, Hockingport, president of the Athens County Farm Bureau. The work of home demonstration agents will be related by the chairmen of the women's committees of two counties. In the afternoon, C. R. Titlow, agricultural extension director of the West Virginia College of Agriculture, will speak.

FARM LOANS

During the last year the Federal land banks have made loans to 55,325 farmers, aggregating \$124,077,000.

The American merchant marine represents the biggest transportation enterprise undertaken by this country since we built the transcontinental railroads. It is bound to increase and stabilize the farmer's business. For that reason he may well begin to study the possibilities of the American merchant marine, inform himself about it, and support it as good business.—*Edward N. Hurley, Chairman of U. S. Shipping Board.*

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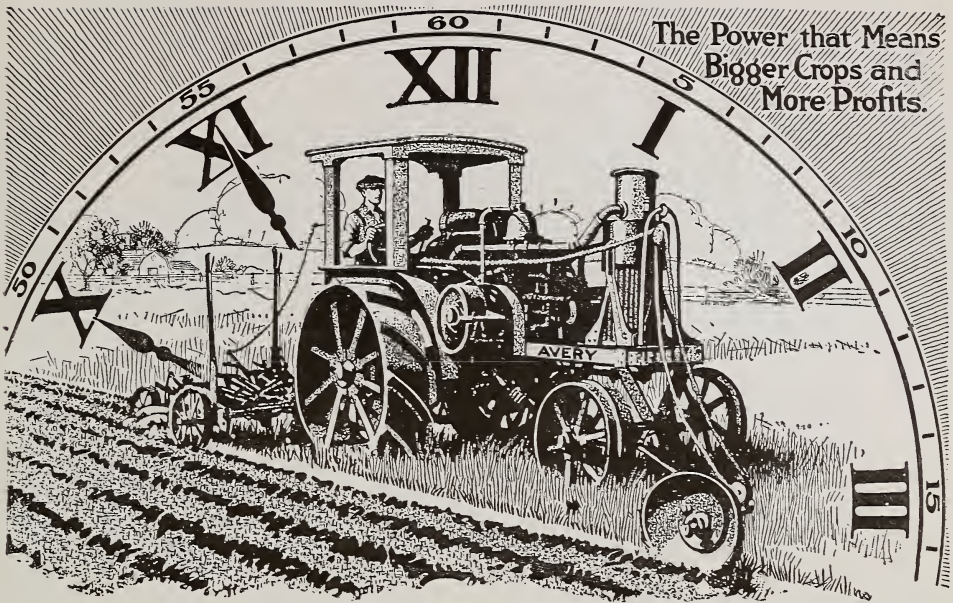
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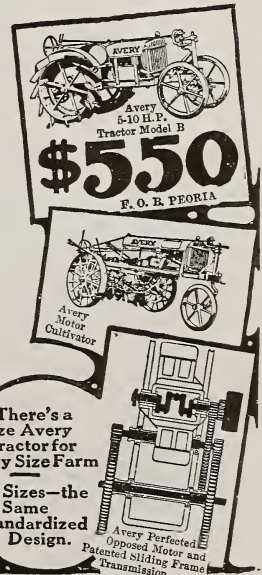
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Ten of Their Daughters Have Produced
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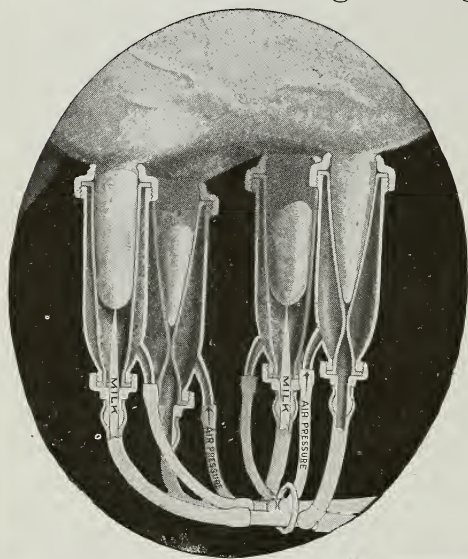
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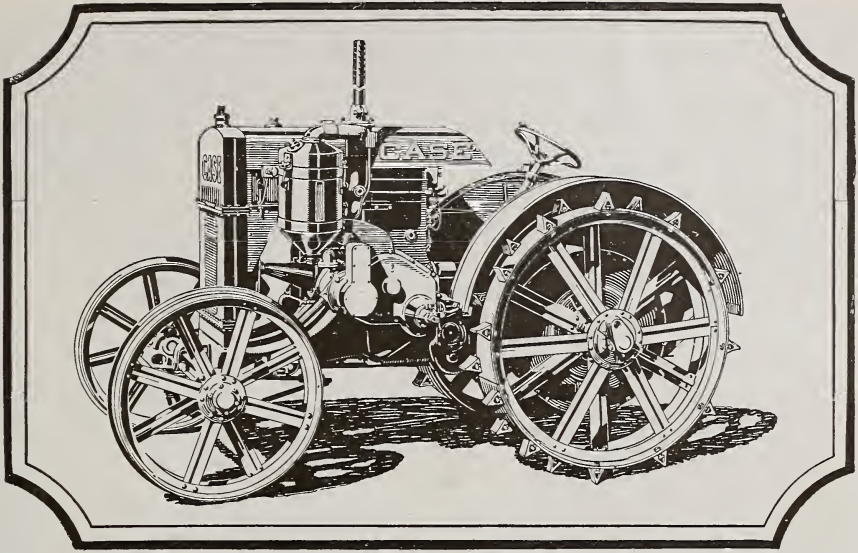
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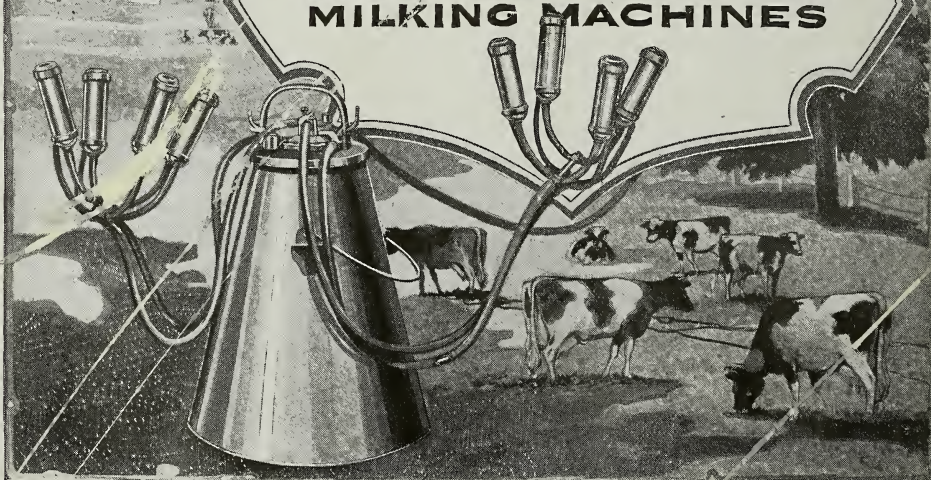
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